November, 1954

SOAP *and* Chemical Specialties

formerly SOAP AND SANITARY CHEMICALS

In this issue...

...nd in floor cleaners ...ings new formulations

* * *

... vacuum drying answer ... better toilet soaps?

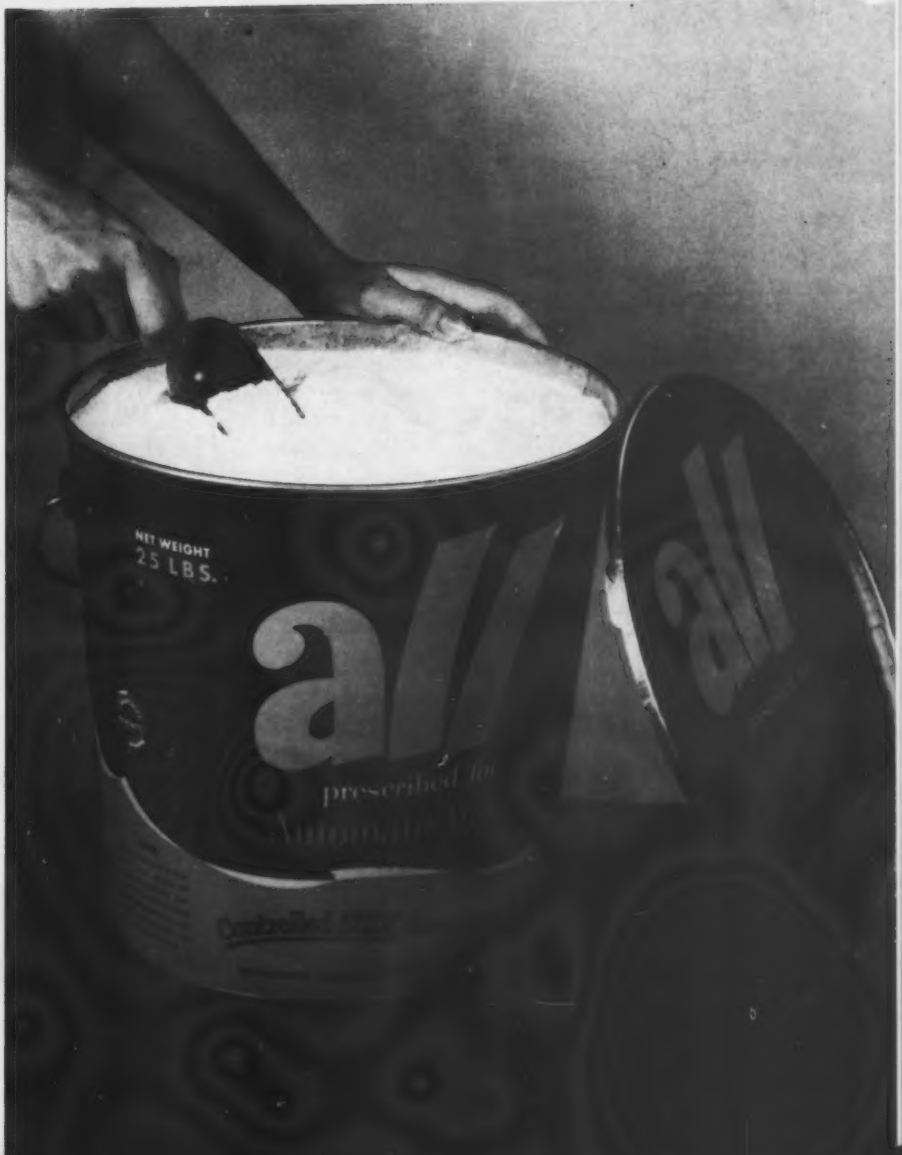
* * *

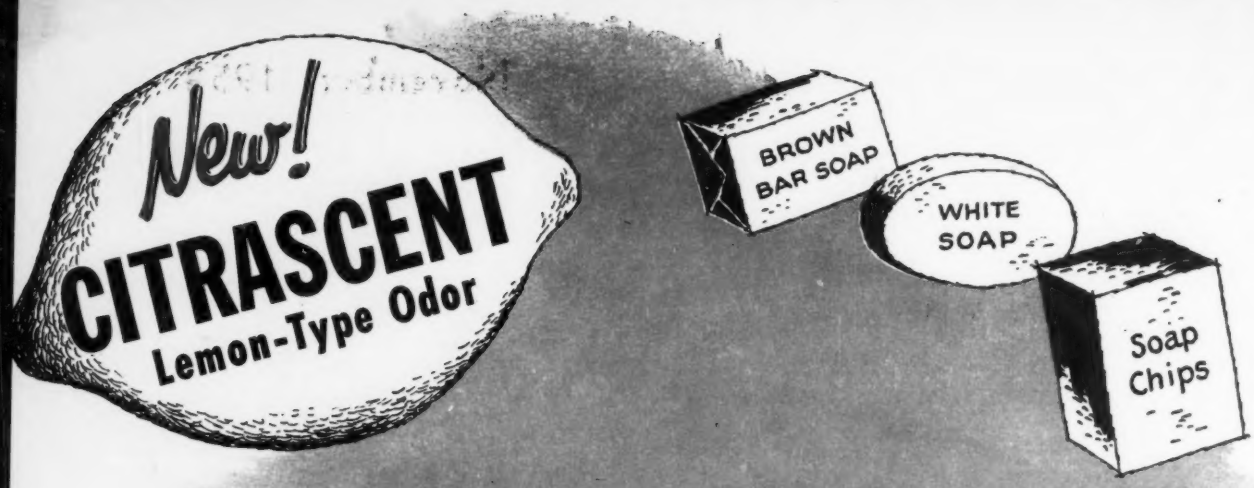
...ming vital in resort ...nitary supply selling

* * *

...erosol perfuming needs ...now-how" of laboratory

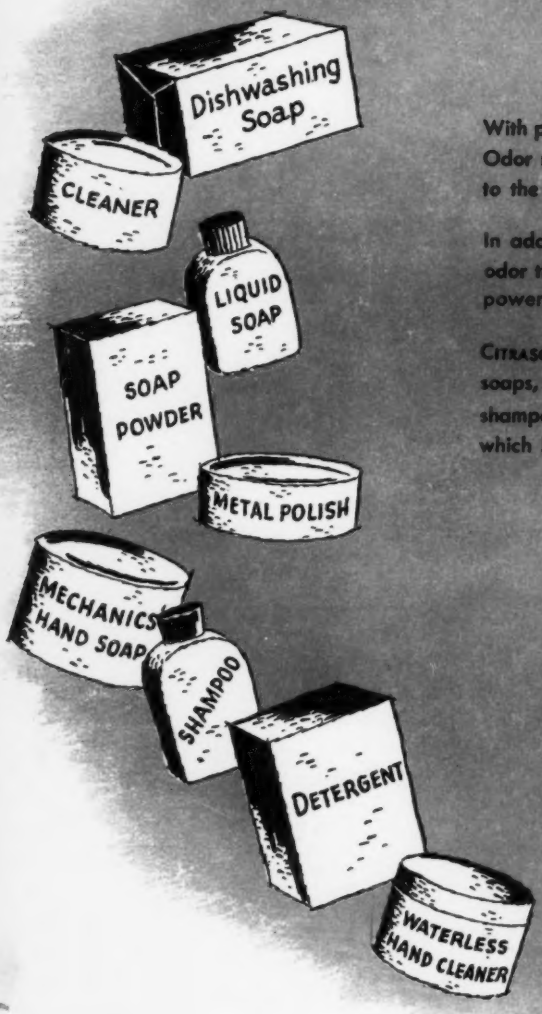
...ver photo . . . Capitalizing on ...end to larger, more economical ...tergent packages is 25 pound re-...able pail of "All" detergent of Monsanto. Lithographed galvanized ...ail made by Continental Can Co.





A POWERFUL, REFINED *Lemon-Type Reodorant*

more stable... more uniform in odor value...
and only ⅕ the cost of natural Oil of Lemon!



With prices of natural Oil of Lemon going sky-high, using our new CITRASCENT Lemon-type Odor means a saving of approximately two-thirds—a figure that is *not* subject to the erratic price fluctuations so characteristic of the natural Oil.

In addition to its economical cost—CITRASCENT has a sweeter, much more refined odor than Oil of Lemon. It provides freedom from discoloration in soap... has greater power, lasting qualities and lift . . . is more uniform and stable in ordor value!

CITRASCENT may be used in brown bar soap, white soap, soap chips, dishwashing soaps, cleaners, liquid soaps, soap powders, metal polishes, mechanics' hand soap, shampoos, detergents, waterless hand cleaners and in many other products which have an objectionable odor. It is available at the following prices:

1 lb. lots	$2.15 lb.
5/10 lb. lots	$1.90 lb.
25 lb. lots	$1.85 lb.
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Why not make your own tests! We'll be glad to send you free samples. No obligation, of course.

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SALES TRAINING
by experts who *teach* your men how to increase sales of all sanitary chemicals.

SALES INCENTIVES
and contests that *keep* your men selling.

SELLING AIDS
to promote and *close* the sale.

NATIONAL ADVERTISING
that *builds* consumer demand and helps pre-sell prospects.

For complete information and samples, just drop us a line and say: "Tell me how to become an Associated JUST Distributor. We have . . . (number) salesmen." Write to: Headquarters, Associated JUST Distributors, Inc., 702 S. Wolfe St., Baltimore 31, Md.

Just
The Combined
CLEANER-DISINFECTANT
DEODORANT-SANITIZER
**Tested and Approved by York Research Corp. For the Hotel Industry*

ASSOCIATED JUST DISTRIBUTORS®

FUL-LIFE
FLEXIBLE FILM
FLOOR FINISH
Outwears self-polishing waxes by 50% to 200% . . .
. . . and more!
**Tested and Approved by York Research Corp. For the Hotel Industry*

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c/o Fuld Brothers Inc., 702 South Wolfe Street, Baltimore 31, Maryland
West Coast Plant: Los Angeles 13, California

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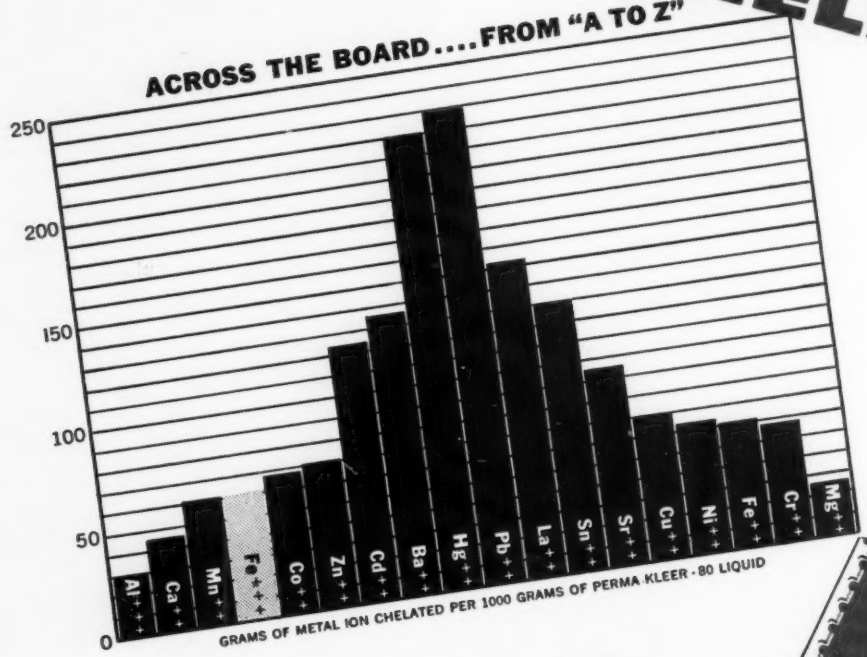
a new TOP in

BALANCED CHELATION



a new standard has been created in sequestration

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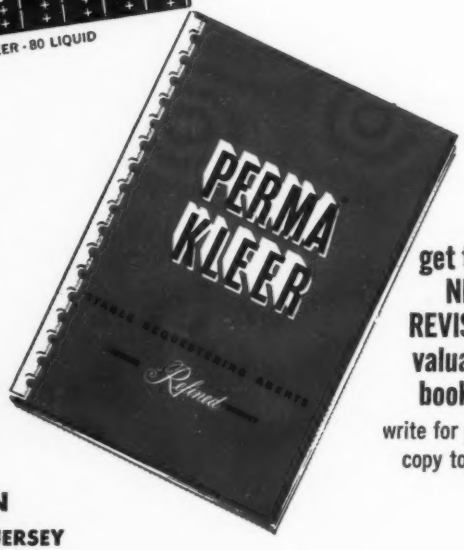

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Volume XXX, No. 11 November, 1954

SOAP and Chemical Specialties

Formerly Soap and Sanitary Chemicals

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to
bathtubs

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No matter how many wax removers you have tried previously, order WAX-RID with the full assurance that it MUST remove every coat of wax and resin from your tile, rubber, composition or linoleum floors—even from blackened baseboard areas—or you return the unused amount and it costs you nothing. Unlike abrasive and alkaline preparations, WAX-RID contains bland ingredients used to penetrate, wet out, and emulsify waxes. WAX-RID IS GOOD FOR YOUR FLOORS—and an ideal all-around cleaner as well!

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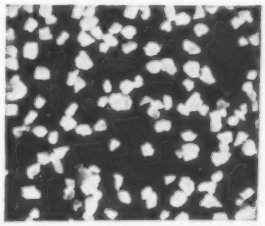
IF YOU USE ANHYDROUS SODIUM METASILICATE

(Na_2SiO_3)



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Basic Chemicals For American Industry

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- *sell the finest product money can buy for wax removal and surface cleaning*
- *save money on freight costs*
- *compound their own wax removers and surface cleaners*

CANDY'S BRIGHT BEAUTY

WATER EMULSION **WAX REMOVER**

ALL PURPOSE **SURFACE CLEANER**

Properly used, BRIGHT BEAUTY cleaner will remove water emulsion wax from any floor without harmful effects to floor or floor coloring. It is the perfect all purpose surface cleaner and waxed floor maintenance wax remover. Pleasant odors (lemon or sassafras) crystal clear colors (natural yellow, red or green) and thorough cleaning action produce satisfied customers everywhere. For use on all floors with all types of equipment. The properties and appearance of BRIGHT BEAUTY cleaner are not affected by having been hard frozen then thawed and agitated. Before making any decisions regarding packaging your own cleaner, fully investigate BRIGHT BEAUTY . . . we are sure you will bear out our conclusions after all tests and trials.

	THE COMPLETE CLEANER—READY TO USE FOR			
	WAX REMOVAL		SURFACE CLEANING	
	RATIO OF WATER TO CLEANER	OZS. CLEANER PER GAL. WATER	RATIO OF WATER TO CLEANER	OZS. CLEANER PER GAL. WATER
15/16% CONCENTRATE	10-1	13 oz.	50-1 to 30-1	2½ oz. to 4 oz.
11/12% CONCENTRATE	7-1	18 oz.	40-1 to 25-1	3 to 5 oz.

SPECIFICATIONS:

15/16% Concentrate is available in 55, 30 and 15 gal. drums, 5 gal. pails, and cartons of 4 one-gallon glass jugs. (Net weight 8.72 lbs. per gal.)

11/12% Concentrate is available in 55, 30 and 15 gal. drums, 5 gal. pails, and cartons of 4 one-gallon glass jugs. (Net weight 8.64 lbs. per gal.)

30/32% Concentrated Concentrate is available in part full packages for dilution to 11/12% and 15/16% concentrates. (Net weight, 9.12 lbs. per gal.)

46/48% Concentrated Concentrate is available only in full 55 gal. drums, (net weight 520 lbs., 9.4 lbs. per gal.).

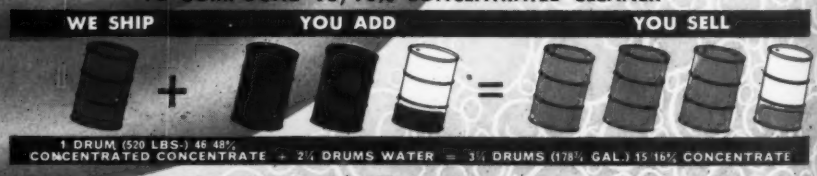
CANDY'S DISTRIBUTION AND SALES POLICY

Our products are available for private brand resale and are sold only through Distributors except for experimental accounts in Chicago essential to research.

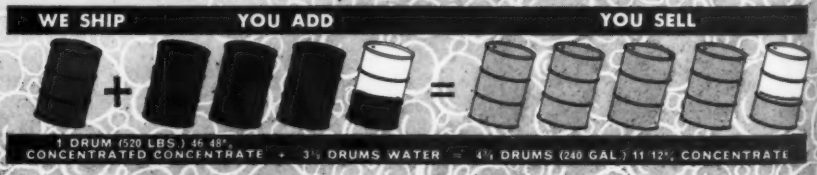
FOR THOSE WHO WANT TO COMPOUND THEIR OWN CLEANER

Two methods are available—(1) By purchasing 30/32% solid content *concentrated* concentrate in part full containers, you need add only water and agitate containers by rolling and stirring contents. (2) By purchasing 46/48% solid content *concentrated* concentrate, you add water only in suitable mixing equipment to produce the retail package of the solid content percentage you desire. The charts below show compounding results for our recommended retail solid content percentages. Remember, you pay freight only on the 520 lbs. (net weight) of 46/48% cleaner and save the cost of shipping the water you add when you do your own compounding.

TO COMPOUND 15/16% CONCENTRATED CLEANER



TO COMPOUND 11/12% CONCENTRATED CLEANER



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Candy & Company, Inc.

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Build better products, bigger sales with

NEW WATER-WHITE ENERGETIC W-100

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It's 100% active, too, so you can use really *low* concentrations. It's free-flowing, fast foaming and unbuilt—easy to adapt to your specifications. You can spray it on solids, too, for stepped-up powdered detergents.

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Just fill in the coupon below for a free sample. Or, better yet, use this coupon to place your order now for a 5-gallon steel drum. See what new Energetic W-100 can do for your products—and your profits.

FREE SAMPLE AND ORDER BLANK!

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Armour and Company, 1355 W. 31st St., Chicago 9, Ill.

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- ☐ **FREE BOOKLET—"Energetic W-100"**
- ____ **5-gallon drums of Energetic W-100 @ $14.80/drum**
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Firm _____

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S-11

ARMOUR *Industrial Soap Department*

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Newest source for caustic soda

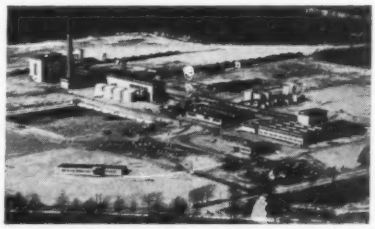
If your plant is in this area you can now have liquid caustic soda delivered more rapidly, more dependably, than ever before.

Here's what this new Hooker caustic soda plant at Montague, Mich., means to Midwest industry:

1. **Fast delivery.** You can have caustic soda delivered by tank car, loaded and dispatched within 24 hours of your call. In and near Chicago, tank car deliveries are made from Chicago stocks.
2. **Freight Savings.** Hundreds of users of caustic soda are saving up to $2.84 per ton on freight, as a result of the plant's location, in the heart of the industrial Midwest.
3. **Dockside delivery.** On Lake Michigan and adjacent waterways you can have Hooker caustic delivered by barge—a new Hooker service (minimum 250 tons, dry basis). Savings are substantial.
4. **Prompt service you can count on.** At the Hooker sales office, 1 N. LaSalle St., Chicago, men are ready to help you plan efficient handling and storage, meet emergency needs, work out the most economical purchasing and delivery arrangements.
5. **Smoother, better processing.** You can use constant processing methods, and get consistent results with Hooker caustic soda. It's produced under careful control; more than 20 separate inspections and analyses protect its uniformity.

Tighten up your caustic supply line now Many industrial leaders in the Midwest are already enjoying the convenience, economy, and dependable supply of Hooker caustic shipped from Montague.

You can have the same convenience and security *tomorrow*. Just pick up your phone and call us.



Caustic soda for Midwest Industry comes from this new $12 million Hooker plant at Montague, Mich. The plant is built over a tremendous bed of pure salt, which supplies the caustic-producing cells.

FOR FAST SERVICE, phone Chicago—CEntral 6-1311
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HOOKER ELECTROCHEMICAL COMPANY

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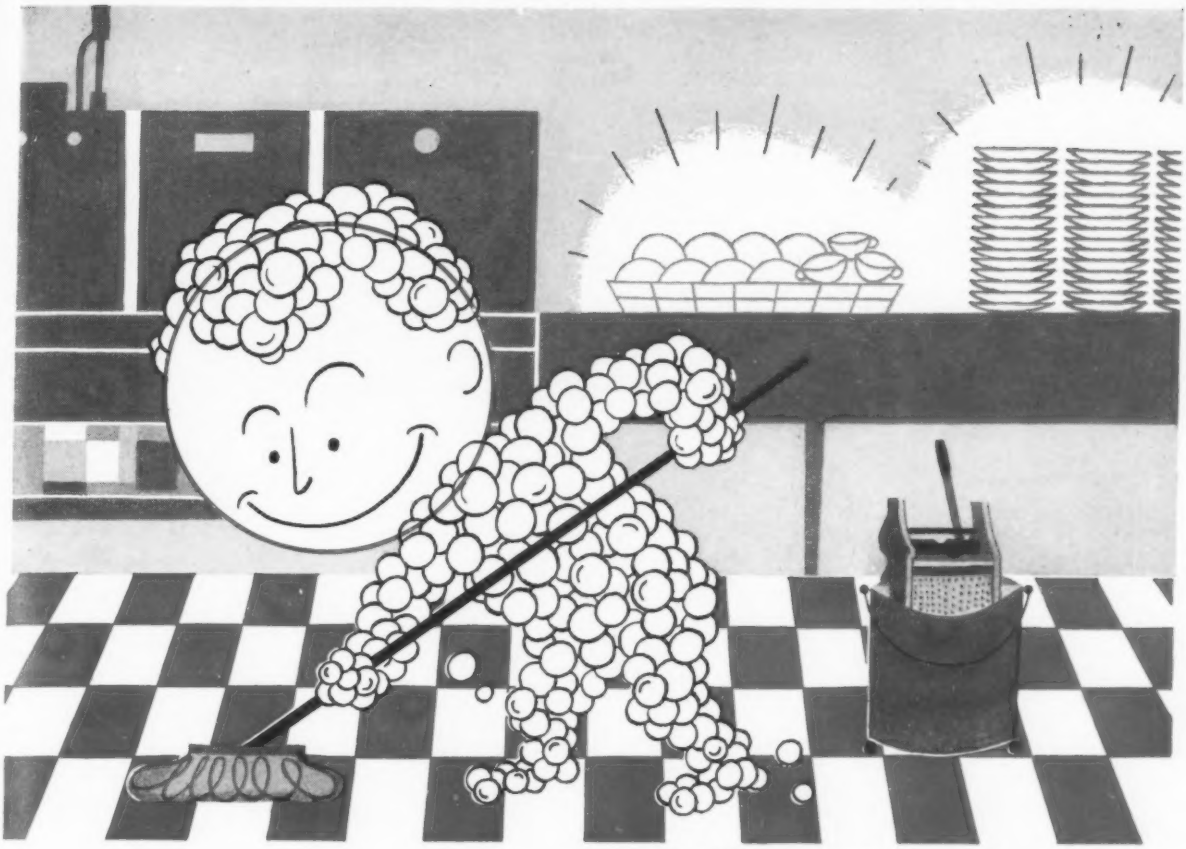

The ULTRAWETS *wet, penetrate, clean, emulsify*

Versatile cleaner makes light work of heavy jobs

THE ULTRAWETS

Name any tough institutional or factory cleaning job: floors, walls, paints, dishes, machinery. Many leading compounders today are finding the greatest efficiency and economy by using the ULTRAWETS in their formulations.

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Tetrasodium Pyrophosphate

SODIUM PHOSPHATES

Trisodium Phosphate
Crystalline
•
Monohydrate

Sodium Polyphos

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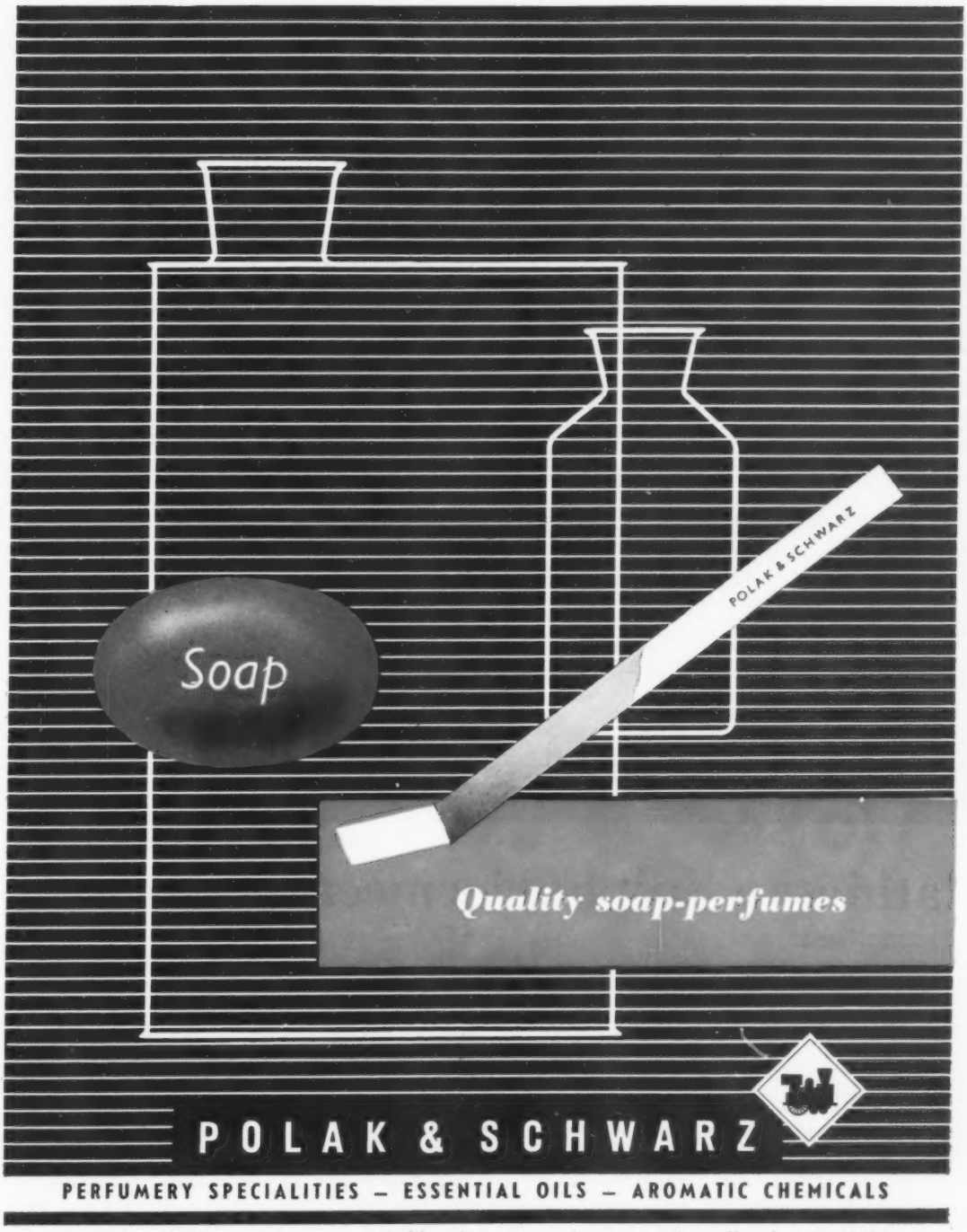
SODIUM SILICOFLUORIDE	CHLORINATED TRISODIUM PHOSPHATE
SODIUM FLUORIDE	DISODIUM PHOSPHATE Anhydrous • Crystalline
HYGRADE FERTILIZER	MONOSODIUM PHOSPHATE Anhydrous • Monohydrate

BLOCKSON

BLOCKSON CHEMICAL COMPANY JOLIET, ILLINOIS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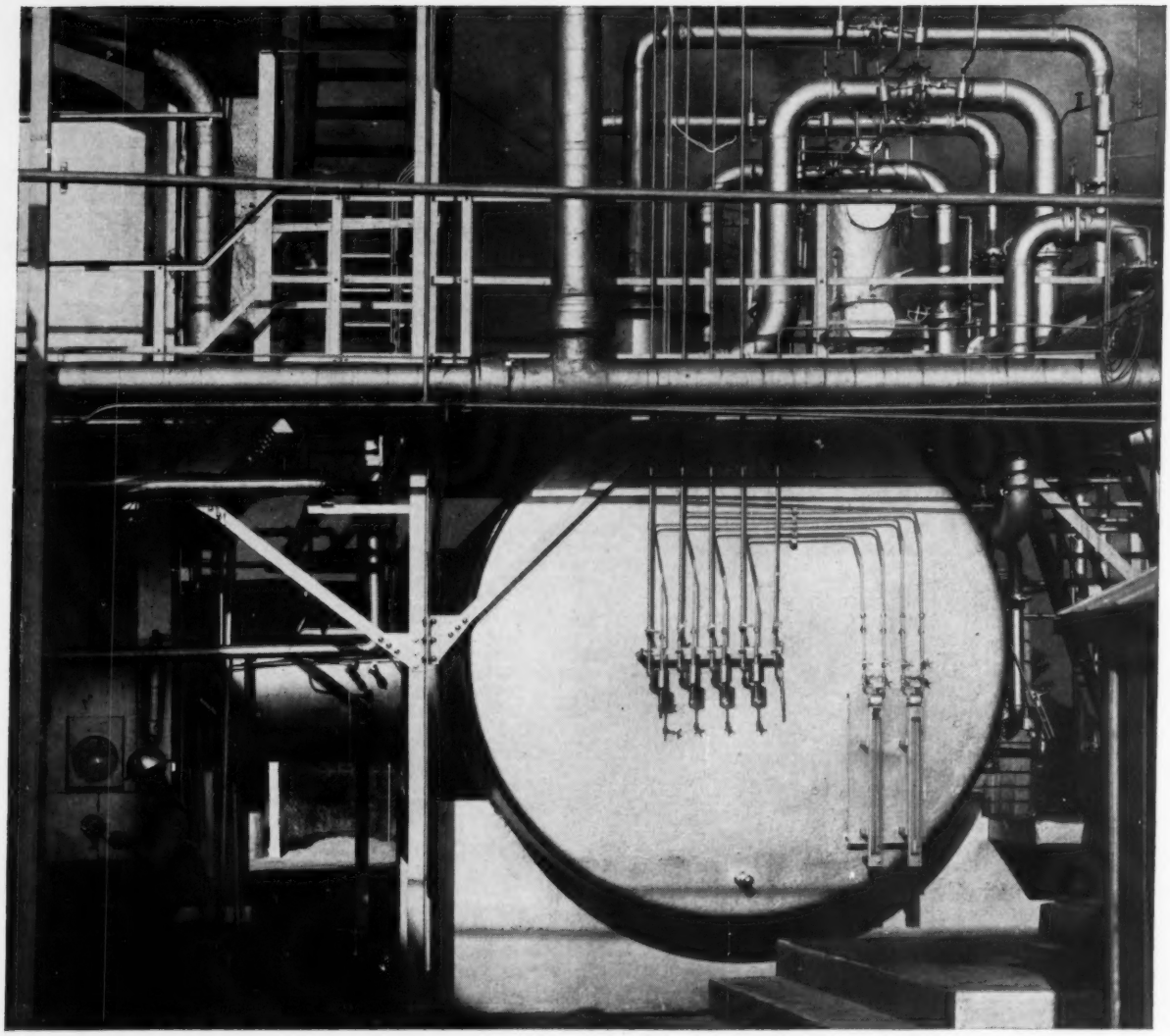

Mathieson Sulphuric: *meets the acid test*

Here, at one of the largest sulphuric acid units in the world, strict production control keeps the Mathieson product a standard of quality in the chemical industry. In this combustion chamber, elemental sulphur is burned to form sulphur dioxide which is reacted with oxygen and water to make sulphuric acid of high purity. This is one of seven Mathieson sulphuric acid plants, located in key industrial areas, that together produce an important part of the nation's fifteen million ton annual output.

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OLIN MATHIESON CHEMICAL CORPORATION

MATHIESON

INDUSTRIAL CHEMICALS DIVISION

BALTIMORE 3, MARYLAND

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Dress any floor with Clear LAB-COTE . . . and you put down a transparent, tough, long-wearing, protective film of amazing lustre. It's like covering your floors with the beauty of cellophane! Not a wax, LAB-COTE is easier to apply. Any unskilled person can do it. Moreover, LAB-COTE keeps floor upkeep down. It is a LAB Cost Control Chemical*for industrial sanitary maintenance. Clear LAB-COTE wears longer and is easy to maintain. It repels dirt. Damp mopping cleans it. Buffing restores its shine. When necessary, LAB-COTE is readily removable. This clear, resilient film provides sure-footed walking . . . dazzling beauty . . . and longer protection for ALL floor surfaces.

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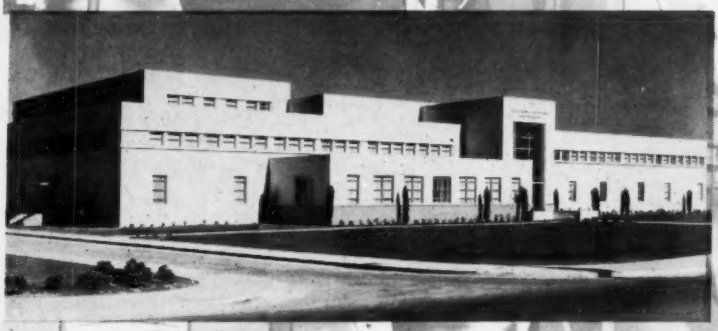

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It costs you no more to do business with the leader. If you are a volume user or seller of surface active materials, we have the experience and engineering know-how to accurately estimate your complete needs for sulfonation. You may find the sulfonating process less costly than you think. If you are interested, why not talk it over with us. Contact by phone or letter the Oronite office nearest you.

Oronite Alkane is available from three centrally located bulk storage terminals. Tank car or tank truck delivery.

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After Closing . . .

Set Residue Tolerances

Proposed residue tolerances for 26 chemical pesticides used on fresh fruit and vegetables and regulations setting up procedures to establish tolerances for other agricultural pesticides and crop uses provided for by the new Miller bill (Public Law 518) were issued by the Department of Health, Education, and Welfare, late last month.

—★—

MM&R Names Two

Magnus, Mabee & Reynard, Inc., New York, recently announced the appointment of two sales representatives to the metropolitan New York area, under the direction of M. Stanley Barker, assistant vice-president.

Howell Rile will represent the firm in parts of Brooklyn and Long Island. William Bruce Wallace has been assigned to Manhattan, the Bronx, and Westchester.

—★—

New Rodenticide Firm

Donco, Inc., Englewood, Colo., formed by Donald Cluff, formerly of Rocon, Inc., is marketing and manufacturing "Pival" dry meal bait and "Pivalyn" water soluble bait under the tradename "Donaco," it was announced recently. In addition the new firm is offering a line of bait stations and liquid bait dispensers.

—★—

Goetchius to Ayerst

The appointment of George R. Goetchius to the research staff of Ayerst Laboratories, a division of American Home Products Corp., New York, was announced last month by W. Boyd O'Connor, president of Ayerst.

Mr. Goetchius was formerly connected with Rohm and Haas Co., Philadelphia, and prior to that was with Sterling-Winthrop Research Institute, Rensselaer, N. Y. At one time he was associated with the New York State Department of Health. A graduate of Cornell University, where he received his M.S. degree in bacteriology, Mr. Goetchius for seven years was a member of the disinfectant scientific committee of the Chemical Specialties Manufacturers Association.

George R. Goetchius

He has done specialized research in the field of antibacterial agents and is responsible for considerable development in the field of quaternary ammonium compounds in industrial sanitation.

—★—

Heyden Buys Nuodex

Heyden Chemical Corp., New York, has bought the entire stock of Nuodex Products Co., Elizabeth, N. J. and of an affiliated real estate company for the aggregate purchase price of $2,800,000, it was announced by Simon Askin, Heyden president. Payment by Heyden was made in $2,650,000 cash and 9,500 shares of Heyden common stock.

—★—

Concentrate Defined

Deletion of the definition of the word, "concentrate", from the Definitions of Terms of the Association of Economic Poisons Control Officials, and the recommendation of a new set of regulatory principles, was announced recently by J. Claggett Jones, AEPCO Investigator on Regulatory Principles and Definitions of Terms. Following a meeting of representatives and officials of C.S.M.A., National Pest Control Association, Manufacturing Chemists Assn., A.E.P.C.O., National Agricultural Chemicals Association and the State Chemist of New Jersey a tentative regulatory principle was decided on. Representing Chemical Specialties Manufacturers Association were Leonard J. Oppenheimer of West Disinfecting Co., Long Island City, N.Y., and John D. Conner, counsel for C.S.M.A.

The following was adopted as a tentative regulatory principle:

Concentrate: The use of the term "concentrate" in the brand name of a pesticide shall be considered misleading unless one of the following is met:

1. The percentage of principal active ingredient (excluding solvents and modifiers) appears in the brand name on the label, (example, "Doe 50% DDT Concentrate").
2. A statement of weight per volume of the principal active ingredient (excluding solvents and modifiers) appears prominently on the label, (example: "Contains 2 lbs. DDT per gallon").
3. The percentage of each active ingredient appears on the label, provided, however, that Number 1 or Number 2 (above) must be used if only one principal active ingredient (excluding solvents and modifiers) is present in the product, (example:

   "Ingredient Statement:

   Active Ingredients

DDT	XX%
Toxaphene	XX%
Inert Ingredients	XX%").

4. The dilution ratio to be followed is part of the brand name, (example: "Doe 10:1 Wood Preservative Concentrate").
5. The addition of diluent to the product results in a mixture which equals or exceeds commercially accepted standards*; provided, however, such commercially accepted standards* shall be clearly stated on the label and directions for use shall indicate the relation, (example: "Dilution with XX parts of deodorized kerosene will yield a Grade AA fly spray, CS ———").
6. Non-dilution of the product allows for higher active strength than commercially accepted standards*; provided, however, such commercially accepted standards* shall be clearly stated on the label and directions for use shall indicate the relation, (example: "This product when used undiluted is XX times stronger than a Grade AA fly spray, CS ———").

7. The product is intended for further processing or formulation prior to sale to the ultimate user, (example: "For Pesticide Manufacturing Use Only").

* Note: The term "commercially accepted standards" refers to those standards which have been adopted for the guidance of users by an agency of the United States Government, a State Government, a recognized trade association, or by any recognized agency engaged in standardizing activities. The Association of Economic Poisons Control Officials will maintain a list of standards which are considered to meet this qualification.

—★—

Ashton Heads Lawlor Co.

Walter G. Ashton became president of S. C. Lawlor Co., Chicago, with Gordon Kerber to assist him, it was announced recently. Arthur Boller remains active in the 67 year-old firm as an adviser and director.

—★—

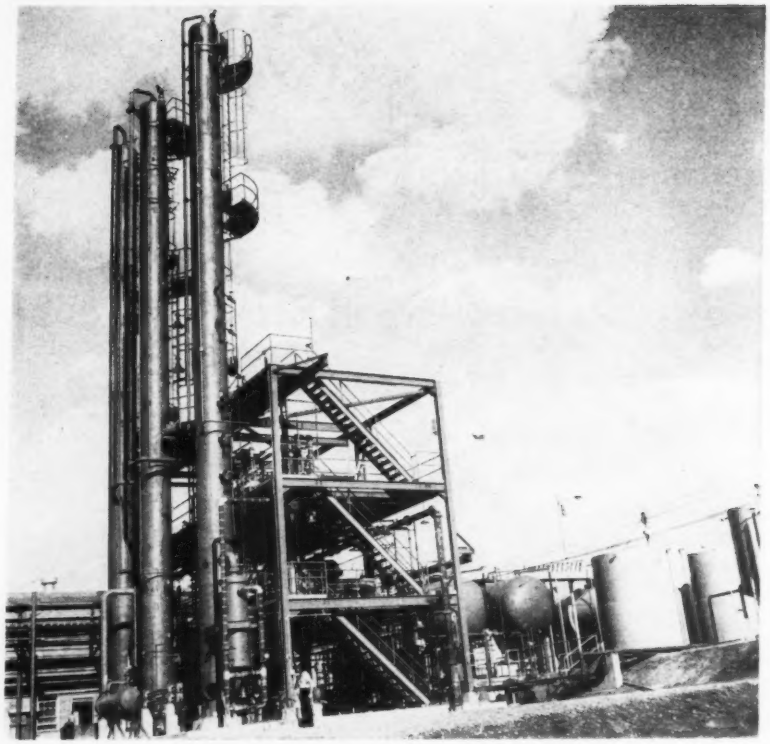
New Solvay Plant

Marking its entry into a new field of chlorinated organic chemicals, Solvay Process Division, Allied Chemical & Dye Corp., New York, recently started production of chlorinated methane products at Moundsville, W. Va. Resembling a petroleum refinery in appearance, and designed with flexibility in mind, the modern plant will produce methyl chloride, methylene chloride, chloroform and carbon tetrachloride. All four products are important to various phases of the defense program as solvents or as intermediates for other essential chemicals.

Methylene chloride, a nonflammable solvent, finds wide use in paint and varnish removers. It also functions well as a grease and oil remover, especially for metal parts. Another potential for this material is in aerosol propellent mixtures.

Chloroform is used in the production of "Genetrons" and "Freons", propellents for aerosols and refrigerants, and in chemical intermediates.

Carbon tetrachloride is an important raw material for fluorinated hydrocarbon propellents and refrigerants, and finds use in the manufacture of fire extinguisher fluids, as well as degreasing agents.



New Solvay plant at Moundsville, W. Va.

SAACI Holds Third Sales Clinic

CHEMICAL selling—good and bad—was intensively discussed at the third all-day sales clinic of the Salesmen's Association of the American Chemical Industry in New York last month.

Chemical industry executives addressing the sessions included W. H. McConnell, vice-president in charge of sales of Diamond Alkali Co., Cleveland, who replaced J. Warren Kinsman, vice-president E. I. du Pont de Nemours & Co., Wilmington, Del., who was unable to appear because of illness. Also Dr. Ray P. Dinsmore, vice-president of Goodyear Tire & Rubber Co., Akron, O.; J. S. Crockett, director of sales training, Minnesota Mining & Manufacturing Co., St. Paul; Frank Lovejoy of Socony-Vacuum Oil Co., New York; George Polzer, general purchasing agent, chemical raw materials, American Cyanamid Co., New York; Ernest Hart, executive vice-president, chemical division, Food Machinery & Chemical Corp., New York, and Charles O'Connor, president, Reichhold Chemicals, Inc., White Plains, N.Y.

Two major reasons were advanced by Mr. McConnell for the increasing tendency of salesmen to heed the advice of so-called "experts". Even veteran salesmen are eager to listen to the experts for reasons of reassurance more than anything else. The newer men in the field, he said, are seeking "tried and true benchmarks." He also defended the selling profession against the many unwarranted attacks being made today on the activities of salesmen.

In discussing the "Tools of Selling," Dr. Ray P. Dinsmore pointed out that "it is well to remember that (salesmen) are in business to sell (their) products not just once but continuously, and neither. . . selling tools nor . . . power of persuasion should be misused to persuade the customer to buy something which he should not buy or is not ready to buy. It is

still true that the soundest sales relationship is based on mutual confidence between the supplier and the customer, and that the finest reinforcement that that relationship can get is a friendly atmosphere between them."

Mr. Crockett declared that salesmen should recognize that they themselves are primarily responsible for their own development. He pointed out that an important means toward self development by salesmen is constant, objective self-appraisal — to determine where weaknesses lie and how a better selling job can be done. He also stressed the importance of a feeling of pride and self-respect—for one's company, his job and himself.

The importance of merchandising in marketing must be learned by the chemical industry as it shifts from a period of "easy selling" to one of "hard selling," Frank Lovejoy stated. He stressed the importance in merchandising of finding out what the purchasing public wants, and then trying to supply it.

Mr. Lovejoy listed as six rules for selling:

1.) Don't talk too much; 2.) Never assume an argumentative manner; 3.) Inquire first and attack afterward; 4.) Be sure the buyer understands that you understand his objection; 4.) Stick to the key issue; 6.) Learn the importance of the word "why".

The sins of both salesmen and purchasing agents were listed by Mr. Polzer. Salesmen's "sins" include calls without appointments late in the day or early in the morning; talking too much; improper or lack of preparation for the call; dishonesty and lack of imagination; excessive entertainment; divulging a company's confidential information to a competitive buying organization; trying to use pressure by going to a higher official in the company.

Buyers' faults include lack of product knowledge; lack of attention to a salesman making a presentation; demanding or suggesting unreasonable or costly service; lack of honesty in distorting the price picture.

"Salesmen are a group of special characters with the opportunity to enjoy and profit by numberless privileges which do not ordinarily come to other classes of corporate employees," according to Ernest Hart. He also told the group that if salesmen "embrace the growth potentials handed to (them) . . . they will come up with extra incentive additives . . ." These, Mr. Hart referred to as necessary to proper motivation. He stressed that salesmen are in a position to educate themselves with regard to these nonmonetary "motivators."

The important part that selling plays in the national economy was pointed out by Charles O'Connor, who spoke following the dinner. Selling is instrumental in keeping industrial activity at peak levels and in the maintenance of friendly relations with foreign countries, he stated.

CSMA Meets in New York, Dec. 6-8

THE Chemical Specialties Association has just announced the program for its 41st annual meeting to be held at the Hotel New Yorker, New York, December 6-8. The convention will feature an aerosol exhibit which will be open from 9 a. m. to 9 p. m. on Dec. 7 and from 9 a. m. to 6 p. m. on Dec. 8. The meeting officially opens Tuesday, Dec. 7, with meetings of the various divisions of which C.S.M.A. is composed.

The Insecticide Division opens with an address by the chairman, George W. Fiero, Esso Standard Oil Co., New York. This will be followed by the report of the chemical analyses committee, read by Mark L. Hill, Gulf Oil Corp., Philadelphia. Other papers to be given in this division's Tuesday morning session are: "Marketing of Small Package Insecticides" by Walter Washburn, Young & Rubicam, Incorporated, New York; "Perthane—A New Chlorinated Hydrocarbon Insecticide" by E. M. Swisher, Rohm & Haas Co., Philadelphia; and "A Revised Concept of Chlordane Toxicity to Warm Blooded Animals" by Lester Ingle, professor of biology, University of Illinois, Urbana.

Concurrently the Soap, Detergents and Sanitary Products Division will open with an address by the chairman, D. H. Terry of Bon Ami Co., New York. This session will feature a panel on "What Your Industry Expects and Requires of Suppliers of Cleaning Materials." Speakers include: Louis Barail, Consultant, New York, on "Selection of Cleaning Materials by the Professional Consultant;" Dewey H. Palmer, research director, Hospital Bureau of Standards and Supplies, New York, on "Hospitals Need Standards of Performance;" J. S. Fassett, American Hotel Association, New York, on "How to Help Hotels Buy Better Cleaning Supplies;" and J. Lloyd Barron, manager of the sanitation department, National Biscuit Co., New York, on "What Industry Expects and Requires of Suppliers of Cleaning Materials."

The Waxes and Floor Finishes Division will also open Tuesday morning with an address by its chairman, A. E. Budner, S. C. Johnson & Son, Inc., Racine, Wis. Program subjects include: "C.S.M.A. Waxes and Floor Finishes Scientific Committee" by H. J. Mellan, Durez Plastics and Chemicals, Inc., North Tonawanda, N. Y.; "Amino-Methyl-Propanol as An Emulsifying Agent in Water Wax Emulsions" by R. S. Egly, Commercial Solvents Corp., Terre Haute, Ind.; "Sampling Wax Emulsions During Wax Processing" by Frank J. Pollnow, Jr., Vestal Inc., St. Louis, Mo.; "Fischer-Tropsch Waxes" by Charles J. Marsel, department of chemical engineering, New York University; and "Biologically Active Surface Coatings" by Kurt J. Wasserman, Trio Chemical Works, Brooklyn, N. Y.

At the group luncheon Dec.

7th the aerosol packaging contest awards and achievement awards will be presented.

Tuesday afternoon, Dec 7, there will be a general session, including a report of the nominating committee by the chairman, N. J. Gothard, Sinclair Refining Co., Harvey, Ill.; election of officers and board of governors for 1955; vote on amendments to the constitution and by-laws covering associate members serving on the board of governors and administrative committees.

Divisional meetings resume Tuesday afternoon, Dec. 7, when the Aerosol Division will hear its chairman, H. R. Shepherd, Connecticut Chemical Research Corp., Bridgeport, Conn. and the following papers: "Product Liability Insurance" by J. M. Crawford, Indemnity Insurance Co., New York; "Pogonotomy — The Art of Shaving" by E. J. Casselman, American Safety Razor Co.; "Propellents For Low Pressure" by Fred T. Reed, Kinetic Laboratory, E. I. du Pont & Co., Wilmington, Del.; "Problems in the Toxicity Testing of Aerosols" by A. H. Gee, Foster D. Snell, New York, and G. W. Fiero, Esso Standard Oil Co.; and "Strobane in Aerosols" by J. B. Moore, McLaughlin Gormley King Co., Minneapolis; and "Safety of the Glass Aerosol" by Francis Mina, Zonite Corp., New Brunswick, N. J.

Concurrently, the Disinfecants and Sanitizers Division will meet and hear its chairman Russell G. Puhle, Tykor Products Division, Borden Co., Brooklyn, N. Y. This will be followed by a forum on the book "Antiseptics, Disinfectants, Fungicides, and Sterilization," edited by George F. Reddish, Lambert Pharmacal Co., St. Louis, Mo., who acts as moderator. Forum speakers will cover: "Methods of Testing Disinfectants," by L. S. Stuart, U. S. Department of Agriculture; "Fungistatic and Fungicidal Test Methods" by Kurt A. Oster, McKesson & Robbins Laboratories, New York; "Phenolic Compounds," E. G. Klarmann, Lehn & Fink Products Co., New York; "Chlorine and Chlorine Products" by W. A. Hadfield, Pennsylvania Salt Manufacturing Co., Philadelphia; "Quaternary Ammonium Compounds" by John W. Klimek, Sterling-Winthrop Foundation, Rensselear, N. Y., and "The Bis-Phenols" by Arthur R. Cade, Givaudan - Delawanna Inc., New York.

On Wednesday morning, Dec. 8, the board of governors will meet from 9:00 a. m. to 10:00 a. m. and the general program will start at 10:30 a. m., with an address by Melvin Fuld, Fuld Brothers, Inc., Baltimore, president of the association. This will be followed by a report of the treasurer, P. C. Reilly of Reilly Tar and Chemical Co., Indianapolis and C. S. M. A. General Counsel John D. Conner. Also scheduled is an address entitled "The New Despotism" by W. S. Jessop, U. S. Sanitary Specialties Corp., Chicago. The "Shipment of Flammable Liquids in New and Used Containers from the Regulations Point of View" will be discussed by H. A. Campbell, Bureau of Explosives, Association of American Railroads, New York.

The luncheon speaker for Wednesday, Dec. 8, has not been announced as yet. A feature of the luncheon will be the presentation of a citation honoring the U. S. Department of Agriculture on "100 Years of Entomology."

The Aerosol and Automotive Divisions will go into joint session on Wednesday afternoon and the following papers will be presented: "Aerosol Specialties in the Automotive Industry" by J. W. Bampton, Krylon, Inc., Philadelphia; "The Chemical Package" by H. G. Lederer and Mark Wilson, delivered by Stanley W. Coryell, R. M. Hollingshead Corp., Camden, N. J.; "How Retailers are Selling Aerosol Products in Today's Market" by D. C. McSorley, and T. J. Johnson, Kinetic Chemicals Division, E. I. du Pont de Nemours & Co., Wilmington, Del., and P. Matthias, Batten, Barton, Durstine and Osborne, New York; and "Powder Aerosols" by Walter Beard of Risdon Manufacturing Co., Naugatuck, Conn.

At the same time a joint session will be held by the Disinfectants and Sanitizers and the Soap, Detergents and Sanitary Chemical Products Divisions. Papers to be read include: "Application and Properties of Chlorinated Alkaline Detergents" by Kurt Albrecht, Calgon, Inc., Pittsburgh; "Suggested Specifications for Modern Institutional Disinfectants" by E. G. Klarmann, Lehn & Fink Products Co., New York; "Some Observations on Janitorial Use of Germicides" by L. S. Stuart, U. S. Department of Agriculture; "Disinfection of Porous Surfaces" by R. L. Stedman, Department of the Navy; and "Bleaching with 1,3-Dichloro-5,5-Dimethyl-Hydantoin" by M. G. Kramer, H. R. Suter, and J. J. Cramer, Wyandotte Chemicals Corp., Wyandotte, Mich.

The Insecticide Division meeting on Wednesday afternoon Dec. 8 will listen to a report of the scientific committee by George S. Kido, Wisconsin Alumni Research Foundation, Madison, Wis. Also scheduled for discussion are: "The Use of Organic Phosphorus Compounds in Fly Control" by H. F. Schoof, Technical Development Laboratories, Department of Health, Education and Welfare, Savannah, Ga.; "Mites as Household Pests" by Edward W. Baker, U. S. Department of Agriculture; and "Some Problems in the Control of Clover Mites" by Philip J. Spear, National Pest Control Association, New York.

At the same time the Waxes and Floor Finishes Division will discuss "Setting of Specifications on Chemical Specialties" by a member of the S. C. Johnson & Son organization; "The Role of A.S.T.M. as a Standard Setting Organization in the Chemical Industry" by B. S. Johnson, Franklin Research Co., Philadelphia; and two papers, one by George R. Freund of Cornelius Products Co., New York, and one by R. E. Sievert of Frank B. Ross Co., Jersey City, N. J. The titles have not been assigned as yet.

The cocktail party and the annual banquet will be held the evening of December 8.

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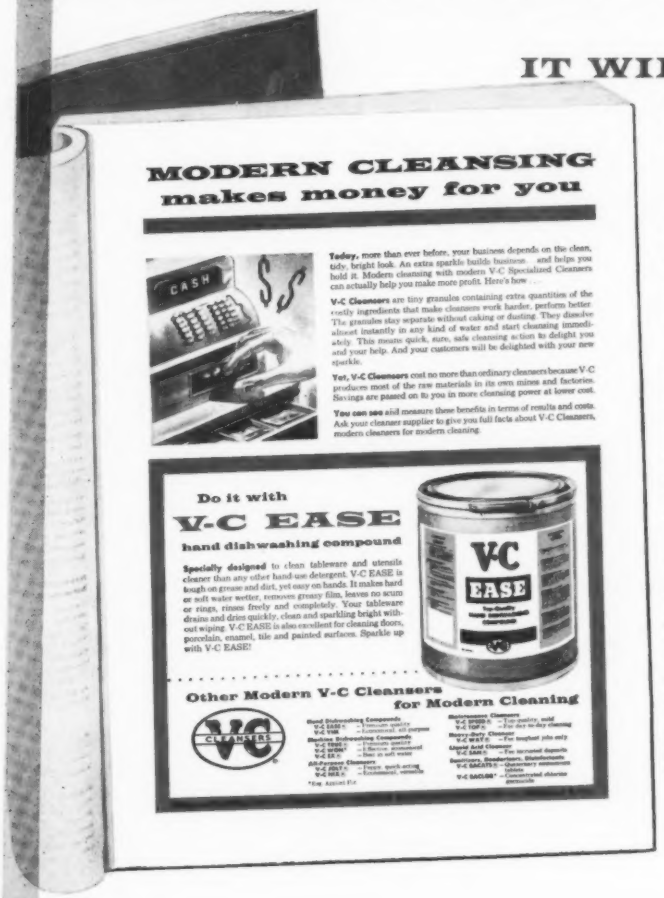
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Colgate-Palmolive's new FAB, an all-purpose detergent, relies on CMC to help it fulfill its promise of "cleaner, whiter, brighter clothes because FAB washes out dirt and leaves no dulling soap scum." And when it comes to dishes, FAB can boast of shiny dishes, just by soaking, with "no washing, no hard scouring and no wiping needed."

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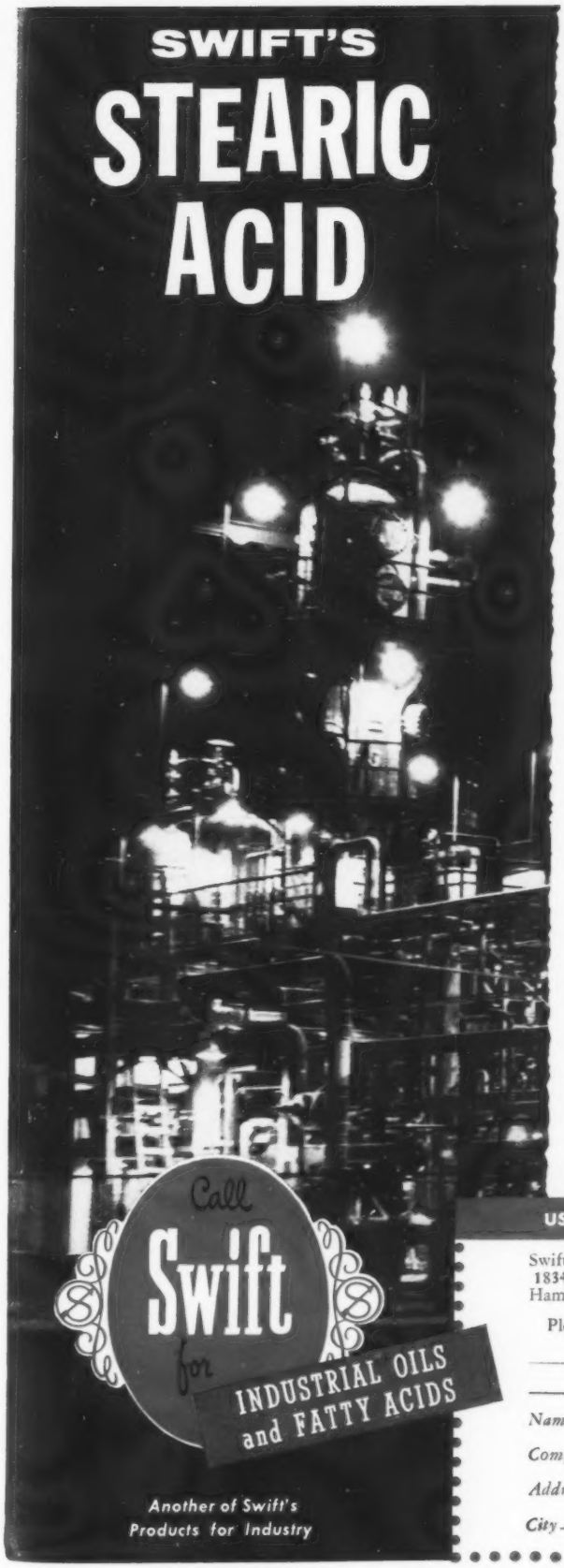

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...about detergents

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by E. G. Thomssen and John W. McCutcheon

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TRITON X-100 Proves Superior in Cleaning Brass and Steel

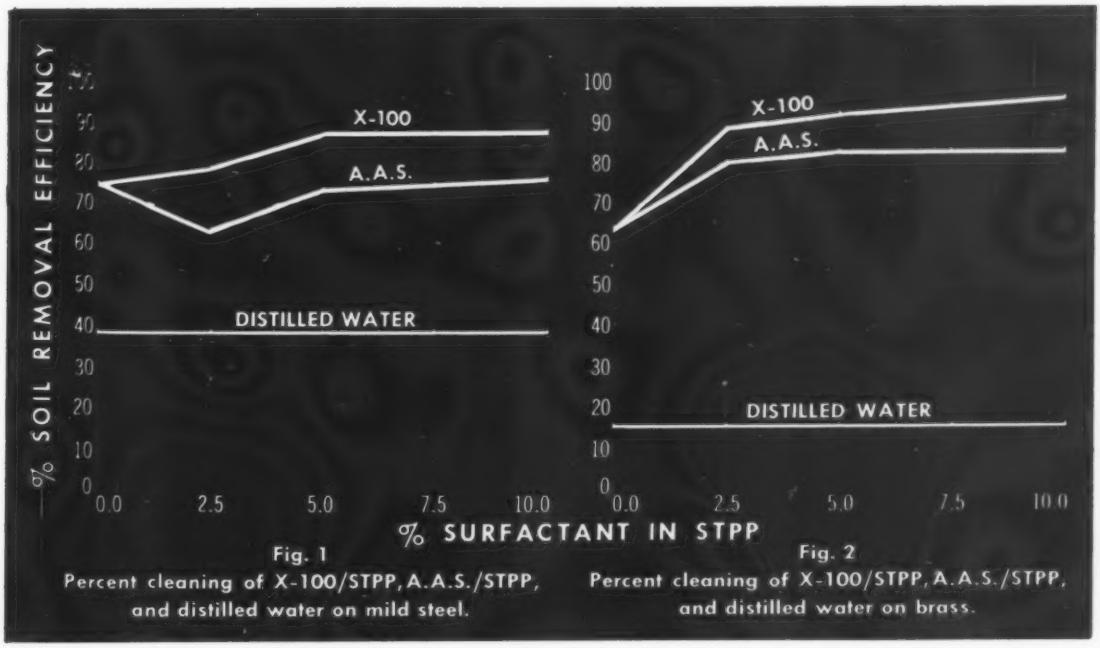

Fig. 1
Percent cleaning of X-100/STPP, A.A.S./STPP, and distilled water on mild steel.

Fig. 2
Percent cleaning of X-100/STPP, A.A.S./STPP, and distilled water on brass.

● In the research laboratories of Rohm & Haas hard surface detergency tests were performed on a number of metals using a large variety of cleaners. Cleaning agents used were TRITON X-100, sodium tripolyphosphate, an alkyl-aryl sulfonate, and, for comparison, distilled water.

The above charts show the typical behavior of blends of a surfactant and an alkaline builder on brass and mild steel. When as little as 2½% or 5% TRITON X-100 was added to sodium tripolyphosphate, detersive action on both metals was found to be superior to that obtained with comparable blends of STPP and a commercial alkyl-aryl sulfonate.

A blend of 2½% TRITON X-100 and 97½% STPP was found to be a better cleaner than one containing 10% aryl sulfonate and 90% STPP. This is a striking example of the superior performance and economy which can be obtained with TRITON X-100.

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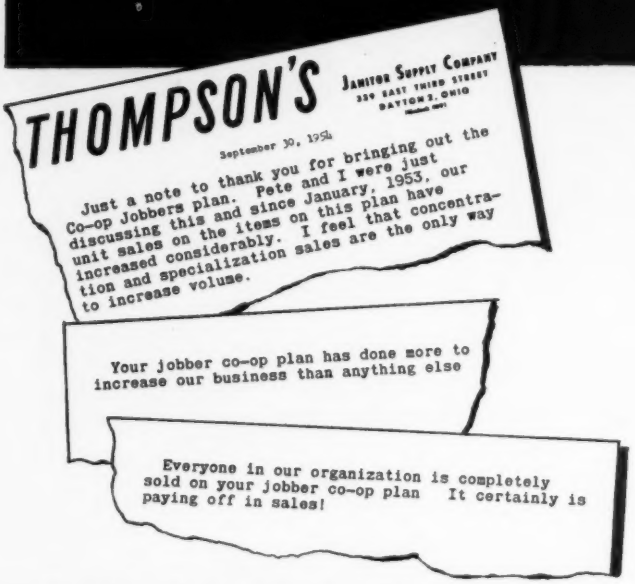
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DAYTON 2, OHIO
September 30, 1954
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Your jobber co-op plan has done more to increase our business than anything else
Everyone in our organization is completely sold on your jobber co-op plan It certainly is paying off in sales!

Cash-in on this terrific Buckeye Plan to help jobbers increase business. Be the first jobber in your territory to affiliate with this power-packed program that has been *field tested during the past two years and proven highly successful.*

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Outstanding faucet dispenser with finger-tip control lever.

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Antiseptic liquid hand soap with hexachlorophene—prevents the growth of skin bacteria.

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Fast-acting stripper and cleaner—quickly removes wax, soap film, dirt and grime.

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Contact us for complete details on this NEW BUCKEYE PLAN

Producers of Quality Products for the Cleaning and Laundry Industry Since 1844

Vice Presidents C. J. Kubik and K. W. Erdman discuss sales strategy for Eastern Chemical's new line of dishwashing products.

"Pluronics made our new dishwashing line possible"

— Eastern Chemical Corporation

Eastern Chemical Corp., Reading, Pa., has one thing in common with other manufacturers of dishwashing products — they are constantly on the alert for new developments that will help them meet the intense competition in their field.

When Eastern Chemical recently began planning their new line of dishwashing products, they worked diligently with Wyandotte's new 100%-active nonionic surface-active agents — the Pluronics*. Here, in their own words, are the results:

"The addition of a small amount of Pluronics to our mechanical dishwashing compounds has overcome some problems which we have been trying to solve for years. In fact, our line of dishwashing products is greatly enhanced by the unique combination of properties available only in the Pluronics, particularly their increased wetting and low-foaming features."

Have you been looking for a surface-active agent that will enhance the rinsability of your compounds without increasing the suds level? Wyandotte's Pluronic L62 will do just that . . . in fact it acts as a defoaming agent. At the same time, Pluronic L62 gives you two extra advantages — effective, permanent dedusting and no increase in moisture pickup.

Fill out and mail the coupon today. Tell us your needs. We will supply you with samples of the Pluronics, a data sheet summarizing their physical and surface-active properties, and other technical and price information. *Wyandotte Chemicals Corp., Wyandotte, Michigan. Offices in principal cities.*

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- ☐ Sample of Pluronic L62 for mechanical dishwashing.
- ☐ Sample of all grades of Pluronics commercially available.
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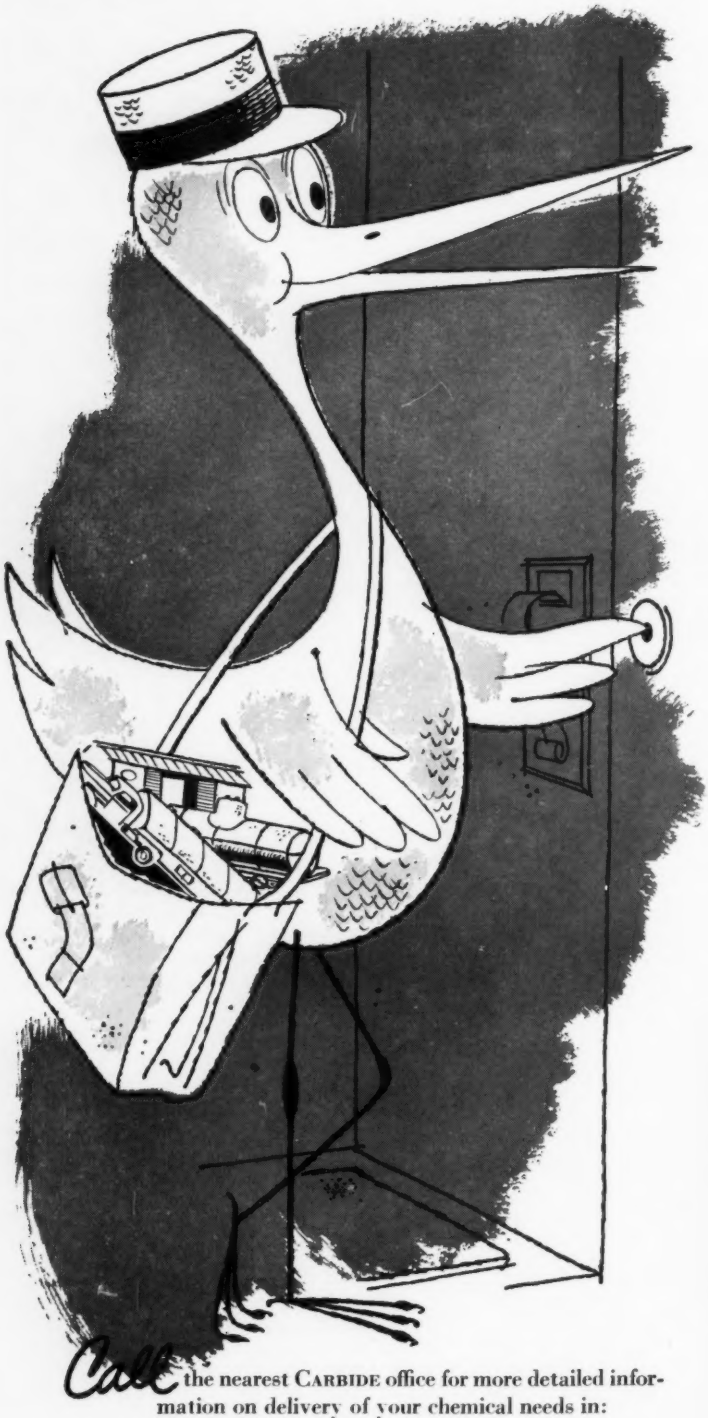

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Call the nearest CARBIDE office for more detailed information on delivery of your chemical needs in:

* 55 gallon drums for LCL or carload lot delivery
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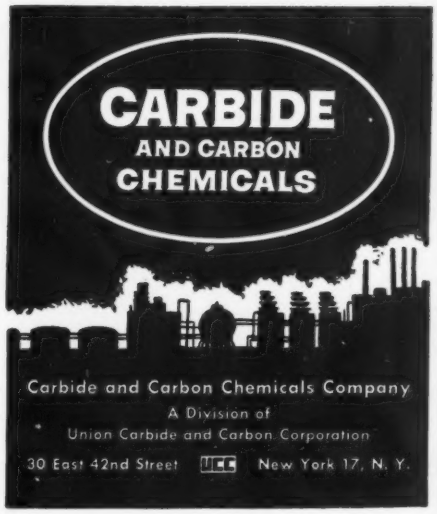

DOW PHENYL ETHYL ALCOHOL
WILL ENHANCE YOUR SOAP PERFUMES

This rose-like fragrance provides luxury soap quality at a new low price that's practical for all types of soap formulations

"A rose by another name" could very well describe the full-bodied natural floral odor of Dow Phenyl Ethyl Alcohol 953. Free from chemical off-odors, this Dow product is a good blender and modifier. Also of importance, it has antioxidant and stabilizing properties and is nondiscoloring in the presence of alkali.

Since its introduction more than a year ago, this product has met with remarkable acceptance. Because of its increased availability, Dow now announces a price reduction of Phenyl Ethyl Alcohol 953. It is now a standardized Dow product, but users of the 952 grade will still be supplied at their specific request.

Write for price data and a sample now. Examine and test its uniformity and quality in your own laboratory. See for yourself what it can do for your product. You'll find it an ingredient practical for—and worthy of—your soap product. THE DOW CHEMICAL COMPANY, Midland, Michigan.

you can depend on DOW AROMATICS

DOW

spotlight on

rancidity in oleic acids

how Emersol Oleic Acid eliminated rancidity in dry cleaning soaps

If rancidity in your product is objectionable, then you may profit from this actual experience: *Case History No. 35-54 . . . To reduce complaints of odor in cleaned clothes, this well-known manufacturer of dry-cleaning soaps evaluated the resistance to rancidity of all available high-quality oleic acids. His tests proved conclusively that Emersol 233 LL Elaine gave his product maximum resistance to rancidity . . . far better than any other oleic acid tested. In this case, not only were "odor" complaints reduced substantially, but an important sales advantage was gained over competitive dry cleaning soaps.* Likewise, the substitution of Emersol 233 LL Elaine for the double-distilled oleic acid in your formulation will give your product maximum resistance to rancidity during storage and use. This, coupled with Emersol 233's outstanding color stability and oxidation stability, will make your products more appealing, stay appealing longer, easier to sell. So . . . buy Emersol 233 LL Elaine when you need the best in oleic acid.

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anhydrous—the most highly concentrated form of sodium metasilicate. Economical, contains no water of crystallization.

Cowles detergent silicates are uniform in composition and particle size—dust free—readily soluble—compatible with other alkalies, soaps, phosphates, synthetic detergents and other chemicals.

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anhydrous—powerful, speedy, heavy-duty sodium orthosilicate—an economical constituent of high pH cleaning compounds.

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pentahydrate—for compounding when lower concentration of finished product is desired. Can be used on medium pH jobs.

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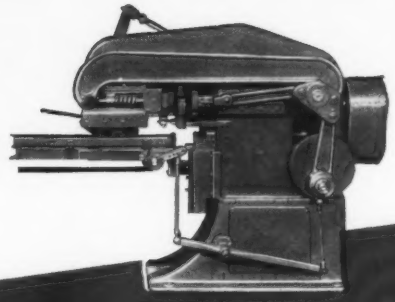
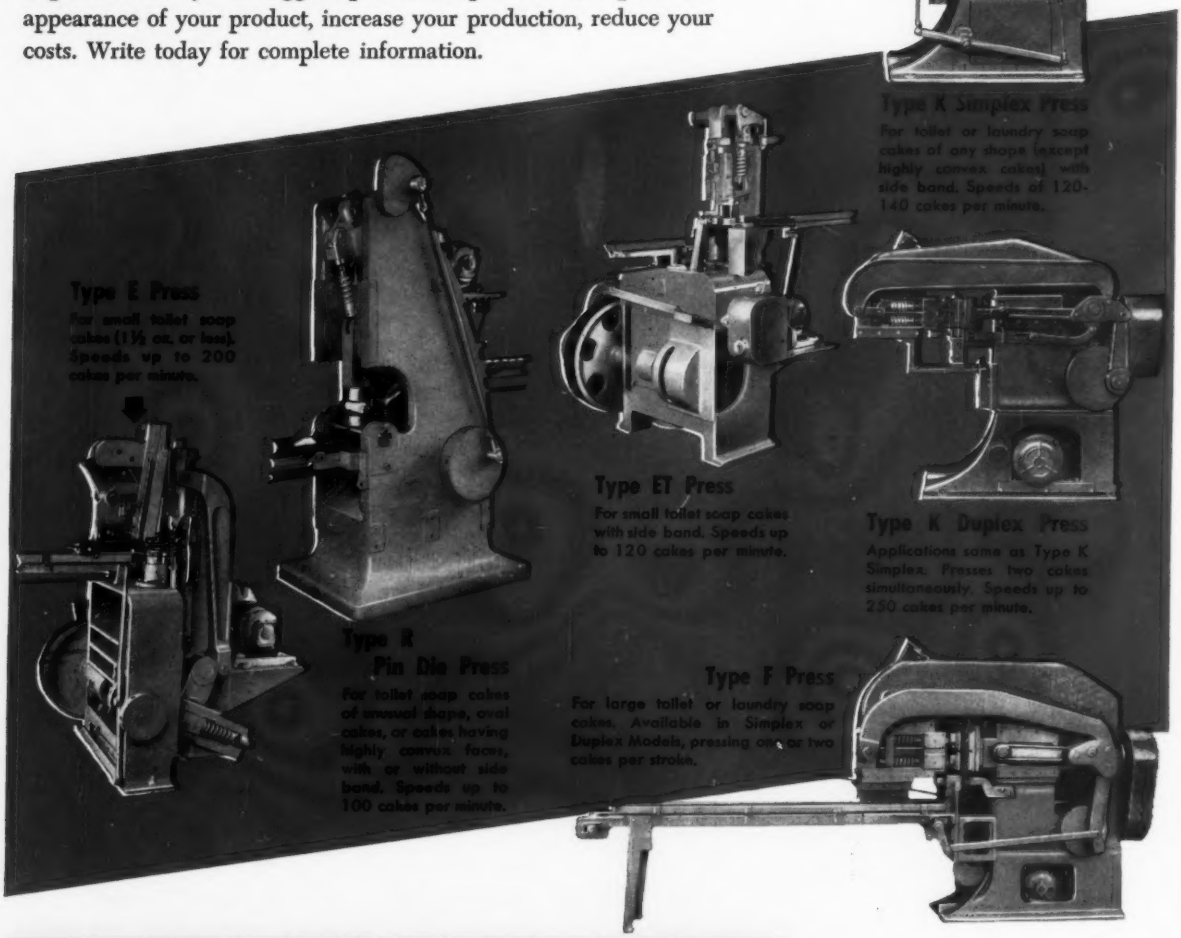
JONES PRESSES, with their exclusive, patented *toggle motion,* have become the standard throughout the world wherever high production, high quality, and perfection of finish are paramount considerations. Standard Jones Presses illustrated here meet all soap pressing requirements. A Jones Toggle Operated Soap Press will improve the appearance of your product, increase your production, reduce your costs. Write today for complete information.



Type K Simplex Press
For toilet or laundry soap cakes of any shape (except highly convex cakes) with side band. Speeds of 120-140 cakes per minute.



Type E Press
For small toilet soap cakes (1½ oz. or less). Speeds up to 200 cakes per minute.

Type ET Press
For small toilet soap cakes with side band. Speeds up to 120 cakes per minute.

Type K Duplex Press
Applications same as Type K Simplex. Presses two cakes simultaneously. Speeds up to 250 cakes per minute.

Type R Pin Die Press
For toilet soap cakes of unusual shape, oval cakes, or cakes having highly convex faces, with or without side band. Speeds up to 100 cakes per minute.

Type F Press
For large toilet or laundry soap cakes. Available in Simplex or Duplex Models, pressing one or two cakes per stroke.

R. A. JONES & COMPANY, INC.
Cartoning Machines — Soap Presses

P. O. BOX 485
CINCINNATI, OHIO

. . . in brief

GIANT SIZE . . . The swing to giant economy packages of soaps and synthetic detergents is snowballing. In some sections, monster sizes of popular brands are outselling the standard large packages by as much as three or four to one. In other areas where the new packages, which run to about three pounds, have been introduced more recently, they are overtaking regular large-size packages rapidly. In the East, for example, the giants are outselling the large packages by about one and one-half to one, and still gaining.

Where this trend to larger packaging sizes will stop is anybody's guess. Based on the success of the giant economy package, two of the large makers of fast selling detergents are test marketing their products in five pound, king size packages. Package units up to 25 pounds, usually galvanized scrub pails filled with a soap or detergent, are not new. However, their sale has been limited because they normally are not sold through chain or independent retail grocery stores. Efforts to promote such package units are again being revived.

The limiting factor on the size of a household washing product package is the weight the shopper is willing to carry. This is probably the reason why the 25 pound package is not suitable for sale through retail grocery stores.

The packaging revolution taking place in the soap industry may make the "large" size package as obsolete as the small, 10 cent package of a few years ago. Because the giant size packages appeal to the economy-minded housewife and save the soap maker money in packaging costs, the combination looks unbeatable.

INVASION . . . Lady salesmen, or probably we should say salesladies, are about to invade the sanitary chemical field. And, what's more, there are likely to be a lot more of them later. This was the startling news which came forth at the recent NSSA regional meeting in New York. As far back as we can remember, peddling of soaps, disinfectants, mops, pails and the like has been man's work. A few hardy female souls have been engaged in the management end of this business, but we know of nary a lady out on the firing line selling the stuff. But a few female sales trainees are about to be turned loose and the experiment will be watched with interest. Some of our tough building custodians, maintenance managers and purchasing agents are going to have to watch their language. This might cramp their styles, and could help sales. Maybe this is what the industry has needed, a little charm mixed in with a drum of coal tar disinfectant or a gross of urinal blocks.

BIDS . . . Preferred customers are not unusual in the realm of business. Everybody likes customers whose credit is good, who buy plenty and don't haggle too much about the price. But, it seems to us after some years of observation that the No. 1 pet customer in and around the field of soaps, waxes, insecticides and the like is our old friend, Uncle Sam. Not only does he seem to be the single largest buyer, but his treatment at the hands of manufacturing suppliers would appear to be very highly preferential.

Now we know that the Government is not the only buyer of chemical specialty products

whose credit is good. Others are known to buy in large quantities and also to pay their bills. So, is it any wonder at times why we and others are amazed by the prices which government agencies pay? We have checked any number of successful bids and fail to see how the suppliers can come out with whole skins.

Why should government agencies consistently buy cheaper than others? Possibly their purchasing people are just smarter. We're not sure. But we never could understand exactly why government bids enjoyed prices denied to the average jobber or large industrial buyer. From the supplier's angle, where does the difference lie?

ANTI-POISON . . . Plans of medical groups to reduce child poisoning from common household chemical products are under study in several parts of the country as previously noted here. A centralized network for quick identification and supplying information on composition and treatment is in the forefront of these plans. An intricate system to contact the manufacturer of the chemical product and to relay the facts on composition and antidotes would be set up. If the plan would work, it might save many child lives. But we doubt its workability and have from the beginning. Too many complications, too many variables, too many chances for delay and error.

On a practical basis, this very serious problem is one to be attacked more with publicity and education than by medical means. The job is to *prevent* the accidental poisoning, to educate the mother and above all the family doctor himself so that he in turn can aid in the preventive effort. We feel that a high-pressure, continuing publicity campaign would be the best move toward a practical solution. To date, our observation is that efforts along this line have been feeble indeed.

Industry groups shy away from a frank, open discussion of this problem for fear of being misunderstood, of adverse publicity, of adverse legislation. In the light of present agitation in medical circles, we feel that industry should inject itself more positively and prominently into the picture and seek its own solution of the problem.

SURVEYS . . . Joe Kaselow, the advertising writer, recently pointed out that the best place to make a survey of what Mrs. McGuff is and is not using in her kitchen is to check the empty containers in her garbage pail. He says that he got the idea from a Bronx, N. Y. housewife whose husband drives a sanitation truck for the city. This lady through the reports of her husband, the garbage collector, knows more about what soaps, peanut butter, and hair varnish are being used than all the market survey artists in town.

So, Joe suggests, a lot of the big-time agencies who "survey" everything from soups to nuts for clients with nice fat bankrolls could save a lot of time and money. Instead of ringing Mrs. McGuff's front doorbell and asking her,—and receiving probably just a shot-in-the-dark guess,—the agency boys should go around to the sanitation department garages when the trucks come in and talk to the drivers. It would be quicker, cheaper and far more accurate. The only tough part, as we see it, would be to get the Madison Avenue agency boys to visit the drivers. Maybe they could persuade the drivers to visit the agencies.

ODOR PROBLEM . . . Where men or women have to work with ill-smelling products, labor problems are complicated just that much more. This was pointed out recently by the manager of a large industrial building. Maintenance products which are unpleasant to use because of bad odor are passed by and not used whenever the supervisor is absent from the vicinity. Remote as it may seem, this leads to arguments between worker and supervisor and tends to make otherwise efficient and useful employees disgruntled and unhappy. Some people, he stated, even quit their jobs rather than use certain maintenance products, frequently because of offensive odor.

This is an interesting slant from a building custodian. In keeping a building clean and sanitary, he further stated that he also liked it to smell "clean" when the job was finished. By that he meant that maintenance products should leave a pleasant residual odor, and which, he criticized, not enough of them do today. The labor-odor

(*Turn to Page 71*)

as the reader sees it...

No Flood; a Trickle

Editor:

In reply to Dr. Barail's letter in your October issue concerning a still highly controversial subject, it would appear that the learned toxicologist and dermatologist is prone to exaggeration.

Far from flooding the chemical journals with my elegant prose, I merely wrote two letters giving my opinion on an article appearing in each; an opinion to which I am surely entitled, as he is to his own.

Yours for a Cleaner World,
W. S. Jessop, president
U. S. Sanitary Specialties Corp.,
Chicago

—★—

The Real Mr. Vernon

Editor:

I was quite surprised when I thumbed through the October issue of "Soap and Chemical Specialties" and on page 177 it was hard to recognize myself. I don't know where in the world you got the picture which is indicated to be I because it just so happens that the picture used is of Mr. J. Fred Schoellkopf, Jr., now deceased, who was formerly a director of our company before Food Machinery days.

I don't know whether you intended that my picture would appear or whether this one was intended for something else, but anyway, it isn't I. I think some sort of correction and announcement of the error in the next issue would be in order.

If you want a picture of me for any purpose, advise and we will see that it is supplied.

J. V. Vernon, president
Niagara Chemical Division,
Food Machinery and Chemical Corp.
Middleport, N. Y.

To Mr. Vernon our apologies for a case of mistaken identity. See photo below. Also see comment on the mixup on page 180 of this issue. Ed.

—★—

Too Much pH Nonsense

Editor:

Actually, most of the points made by Mr. Jessop in his letter in the September issue of *Soap* are well taken. I believe he hasn't quite said what he means in a few cases and some readers may be confused. Free acids exist that will not, under normal conditions, attack the healthy skin: stearic, sebacic and weak boric, for example. pH does not measure "pressure" of hydrogen ions present but their concentration. To state that pH is a potential in the poised bucket sense is a little misleading in that pH is indeed an actuality and exerts a very real influence on its environment. It has an electrical potential associated with it.

Soaps do hydrolyze significantly. They are salts of weak acids and strong bases and exhibit true hydrolysis in the sense that there is a removal of hydrogen ions of water by the fatty ions to form a relatively undissociated and insoluble acid, leaving a measurable excess of hydroxyl ions. This accounts for the increase in pH occurring when soap is dissolved in water. In fact, Ruemele (*Soap*, 1, 1948, P. 42) states: "various research workers have demonstrated that the quantities of alkali resulting from soap hydrolysis are significantly greater than those normally present in soaps."

The dermatologic signficance of this hydrolysis alkalinity is another matter, however, and I believe it is what Mr. Jessop intended to point out. For example, Ruemele also states: "those soaps which are dermatologically useless show the least hydrolysis."

I agree with Mr. Jessop, however, that there is too much nonsense written about pH and sincerely hope that I, too, have not added to the sum.

Name withheld

The writer of the foregoing letter, because his firm is a "friendly competitor" of Mr. Jessop's company has asked that he not be identified. Ed.

—★—

Chlorophyllins—Evaporate

Editor:

In his letter in the October issue of *Soap*, William H. Sachs states that "the vast majority of commercial space deodorants which contain chlorophyllins also contain formaldehyde or a similar aldehyde." As a matter of fact, only a few of them do, and they are not at all true deodorants. By definition, a true deodorant does not contain any counteractant or masking agent.

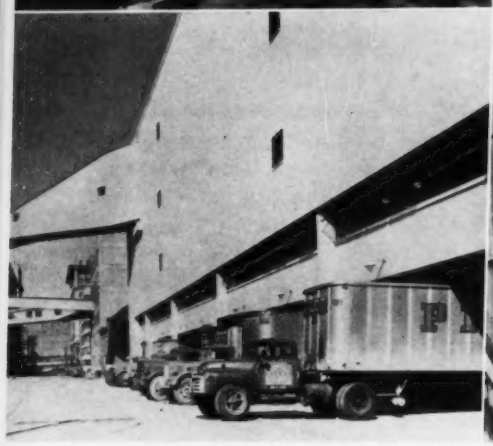
Chlorophyllins when properly prepared do evaporate in wicks and candles. This has been demonstrated both in the laboratory and in the field.

Dr. Louis C. Barail
Consulting biochemist and toxicologist
New York City

J. V. Vernon

J. Fred Schoellkopf, Jr.

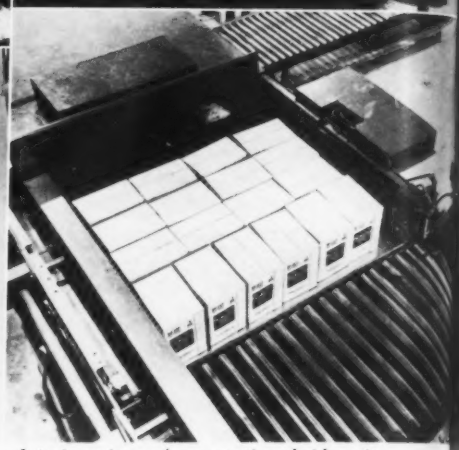
New soap warehouse of Colgate-Palmolive Co. in Jersey City, N. J., (top, left) has storage capacity of 775,000 cases or 30,000,000 pounds of soap products.



Part of elevated structural-steel bridge network (top, center) containing conveyor lines that carry finished products from manufacturing plant to warehouse.

Cases of finished soap products (top, right), from conveyor lines, pass a sorting table, where operator sorts them by type, directs them to correct conveyor.

Conveyor bridge, bottom, left, containing four feeder conveyors, towers over 18 truck loading bays, lower right. Trucks service customers on East Coast.



Interior view of connecting bridge is shown in bottom center photo. Feeder conveyors mounted on this structure carry cases to third and fourth floors.

Cases of soap glide along push-button controlled conveyor lines (bottom, right), to one of the huge automatic palletizers at rate of 28 cases per minute.

Colgate Opens New Warehouse

ONE of the world's most modern soap warehouses was opened officially Oct. 14, by Colgate-Palmolive Co. in Jersey City, N. J. A multi-million dollar four-storied steel and brick structure, the warehouse features some of the most advanced principles of the automaton age.

Formal dedication of the building was made at a special luncheon Oct. 14, before a distinguished gathering which included the officers and the board of directors of Colgate-Palmolive Co., food industry executives, as well as a number of other prominent New York and New Jersey business and civic leaders.

Addresses were delivered by Edward H. Little, chairman of the board of Colgate-Palmolive Co., who was introduced by Joseph H. McConnell, president; and Mayor Bernard J. Berry of Jersey City. The Jersey City Philharmonic Symphony Orchestra, whose 16th regular concert season commences November 17, gave a pre-season concert during the luncheon.

Mr. Little traced the history of the site of the new soap warehouse back 107 years when William Colgate moved his small soap business from lower Manhattan to its present location. "In those days," he said, "this section of Hudson County was known as 'Paulus Hook,' and there was a small Revolutionary War fort on the waterfront."

The chairman of the board of the Colgate-Palmolive Co. also called the ceremonies more than just the opening of another modern warehouse. "This new building," he said, "is but a symbol of the industrial vitality of a great and growing nation. In the last 50 years, the United States has become a world power. With our population doubled in that length of time and estimated to increase another 23 million in the next 10 years—the population will reach around 186 million by 1965. With our enormous natural resources, and the ability to develop them, the demand for production is on the increase."

He called the growth of Colgate-Palmolive Co. "one unit" of the national industrial expansion and cited some of the firm's major developments since the end of World War II.

At the speakers' table were officers and directors of Colgate-Palmolive Co.: Edward H. Little, chairman of the board; Joseph H. McConnell, president; Charles S. Pearce, honorary chairman; S. Bayard Colgate, honorary chairman; William L. Sims, II, executive vice-

president and director; Frederic H. Brandi, director; Henry A. Colgate, director; John K. Colgate, director; James A. Coulter, director; Walter G. Dunnington, director; William B. Johnson, director; Herbert O. Peet, director; H. Walter Reynolds, vice-president and director.

On a tour of the warehouse at the conclusion of the luncheon, guests were shown how finished soap products arrive in the warehouse by means of an over-the-street conveyor system from manufacturing buildings as far as three blocks from the warehouse. They saw how 95 per cent of finished soap products are now automatically palletized in the new building. Other features include semi-automatic case sorting tables, accumulating conveyors, 18 truck loading bays and an indoor railroad siding with capacity for three freight cars.

The new soap warehouse, located at Sussex and Hudson Streets in Jersey City, is a four-floor modern building that contains 368,000 square feet of floor space. The length of the reinforced concrete and structural steel frame-supported building is 465 feet. The width at the south end is 218 feet; at the north end 174 feet. Its storage capacity is 775,000 cases or 30,000,000 pounds of soap. Headroom for finished goods is 15 feet.

Leaving the department where it is produced, a Colgate-Palmolive product begins its journey to the warehouse by means of feeder conveyors mounted in a structural-steel bridge towering above the streets.

The product joins converging streams of conveyor lines carrying other products to the warehouse. Once in the warehouse, it is transported to the third or fourth floor. Passing across a semi-automatic case-sorting table, it is sorted and directed to a designated accumulating conveyor. This conveyor guides the case to the palletizing machine where it is stacked automatically on a wooden pallet in accordance with a predetermined pattern. This pattern may vary from as few as 24 to as many as 120 cases.

Now part of a pallet load, the product is transferred by means of a fork-lift truck to the infeed conveyor of a pallet elevator. (Four of these elevators take care of nearly all the vertical movements in the warehouse). The elevator automatically loads, then descends or rises to the desired floor before discharging the load to a receiving conveyor. An electric fork-lift truck then transports the pallet to a storage or shipping area.

If the product is part of a load designated for immediate shipment, the shipping order, of which it is a part, has previously been analyzed for quantity and number of full or part pallet loads. Full pallet loads are supplied to a holding area reserved for the particular load. Part pallets are supplied through an order assembly system on the first floor.

The shipment can go by truck. The truck will occupy one of the 18 regular loading bays, each provided with a power-driven dockboard to bridge the gap between the truck bed and the warehouse floor and to compensate for differences in elevation.

The shipment could go by rail. If so, three indoor freight car-loading locations are available.

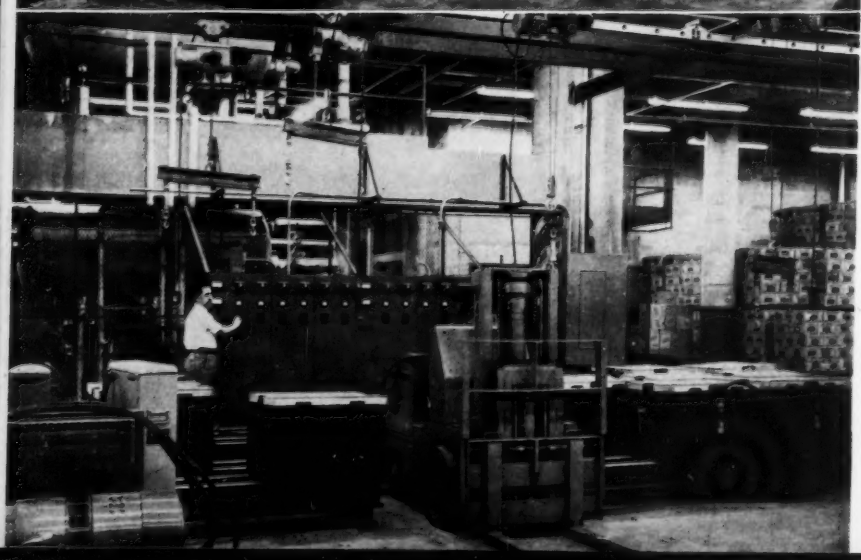
Automatically directed and processed from the time it left the

E. H. Little, right, Colgate board chairman shows Jersey City's Mayor, Bernard J. Berry, center, and Joseph H. McConnell, president of Colgate, a scale model of the new multi-million dollar warehouse which was officially opened on Oct. 14.

Bottom left: Pallet load of Palmolive soap leaves automatic palletizer. It is then conveyed to a pallet elevator.

Six pallets are loaded into the palletizer, where they are stored, awaiting their next consignment of soap products.

Each truck loading bay, bottom, right, has power driven dockboard to bridge gap between truck bed and building floor.



Loaded pallets (top) emerge from one of the four pallet elevators. Lifts handle almost all vertical movement.

Pallet loads from storage area are placed on conveyor approach to automatic pallet elevators, second photo.

Indoor railroad siding (third f. top) has capacity for three freight cars. Electric trucks load freight cars.

Electric filling station (bottom) where trucks have batteries recharged from time to time as needed.

manufacturing department, the product has had a unique journey.

The final design of this new soap warehouse stemmed from extensive studies and definitive layouts prepared by the engineering and production divisions of Colgate-Palmolive Co.

Detail design of the building and its utilities was prepared by Albert Kahn Associated Architects and Engineers, the feeder conveyor system by the Austin Co., and the automatic palletizing system by the Lamson Corp.

General contractors for the building, feeder conveyor system and the palletizing system were George A. Fuller Corp., Austin Co., and Lamson Corp., respectively.

Colgate-Palmolive Co., which officially opened its new multi-million dollar soap warehouse at the corner of Sussex and Hudson Streets, Jersey City, on Oct. 14, has been located in that city for more than 107 years.

From a tiny factory on the Hudson River waterfront, on the site of the Revolutionary War fort of Paulus Hook, the company has grown and expanded until the plant in Jersey City alone now includes more than 48 factory buildings and warehouses covering nearly 13 city blocks. The majority of the employees working in these buildings are residents of Hudson County.

Other domestic plants of the Company are at Jeffersonville, Ind.; Kansas City, Kans., and Berkeley, Calif. Foreign operations are carried on through subsidiaries located in 25 foreign countries and through

the company's export department.

In 1953, Colgate-Palmolive Company's world-wide sales totaled over $400,000,000.

The earliest record of the Company starts with William Colgate in 1806. At the age of 23, young William Colgate opened his own soap-making firm in downtown New York City. The Colgate Co. prospered and in 1847 moved to its present site in Jersey City.

The new multi-million dollar soap warehouse, which has direct access to Jersey City's truck, railroad and harbor facilities, is the latest in Colgate's program of expanding its manufacturing and storage facilities in Jersey City. Only a short time ago Colgate completed a new plant for the manufacture of synthetic detergents in Jersey City and also enlarged its power plant to care for its expanding business.

In his address, E. H. Little, chairman of the board and former president of Colgate-Palmolive Co. listed recent expansions in the company's operations. To its domestic facilities, Colgate - Palmolive has added seven new detergents plants: Two in Jersey City, two in Jeffersonville, Ind., two in Kansas City, Kans., and one in Berkeley, Calif.

Three new toilet article plants have been added to its domestic operations, Mr. Little pointed out. The firm has added one completely new plant in Kansas City, Kans., and major additions have been made to Colgate plants in Jeffersonville and Berkeley, the Colgate chairman stated.

Besides the new warehouse which Colgate-Palmolive Co. opened in Jersey City on Oct. 14, it has added two others, one in Jeffersonville, and another in Berkeley.

Mr. Little also cited as a major addition at Jersey City the construction of a research pilot plant and laboratories. His company is spending nearly five million dollars on research this year alone, Mr. Little declared. This compares with an expenditure of $250,000 to $300,000 10 or 15 years ago. Personnel in the company's research and development department has been increased by 295 since 1945, according to Mr. Little.

Foreign expansion listed by Mr. Little included Mexico, where a large new plant and warehouse for the manufacture of soap, synthetic detergents and toilet articles, as well as a new office building have been erected.

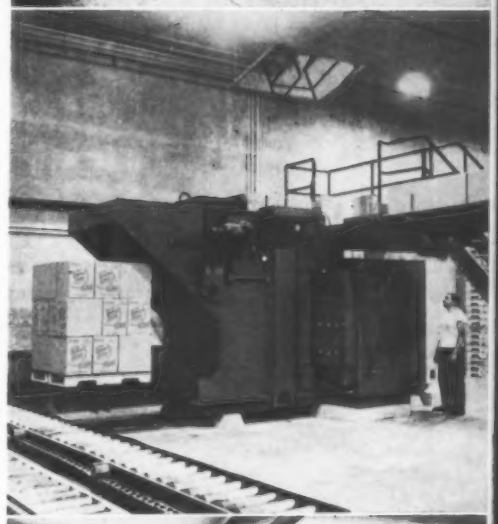
A new detergent plant has been built by Colgate-Palmolive Co. in Canada. Here, too, soap, toilet article and office building facilities have been expanded.

Growth of the company's operations in South and Central America as outlined by Mr. Little, included the erection of a new toilet article plant, warehouse and office building in Columbia; a new soap plant in Brazil and a new detergent plant now under construction in Venezuela, where the company has also acquired soap-making equipment.

In the Philippines, Colgate has built a new plant and office building, Mr. Little stated.

A new detergent plant and office building have been constructed for Colgate-Palmolive Co. in Cuba, and in Germany, England, France and Italy facilities have been improved, replaced or added.

All German facilities, 80 percent of which were bombed out during the war, have been replaced, and additions have been made in some cases. British Colgate units which were also badly damaged during the war have been replaced completely, if damaged, and additional new units constructed. A new toilet article and detergent plant is being completed for Colgate in France; and in Italy one of the finest office buildings in Europe was recently completed.



Electronic panel (top) automatically controls converging streams of merchandise flowing to upper floors of new warehouse.

Soap products travel along push-button conveyor lines into palletizing machine (second photo) on way to elevators.

Modern offices (third f. top) for supervisory and clerical staff. Located on mezzanine, overlooking shipping operations.

Modern locker room facilities feature glazed tile walls, cork-type ceiling and asphalt tile floor for sanitation.

Drying Soap Under Vacuum

THE Mazzoni method of drying and cooling soap continuously was described in this publication some years ago (1). Since then, more than 90 plants have been installed and it has been possible to gain considerable experience in working with different types of soap. In view of these useful contributions it now seems interesting to examine the process closely in the light of the new knowledge obtained.

In this article I will review particularly the Mazzoni plant as a dryer and cooler for toilet soap and soap flakes. The subject is largely based on the experiences and personal opinions of the writer who has concerned himself for some years with the manufacture of soap by the Mazzoni process.

In this process the finished neat soap obtained by the normal full-boiled method, or by other systems, for instance by neutralization of fatty acids, is pumped to a countercurrent preheater where, if toilet soap or soap flakes are to be produced, the temperature is raised to 300°-330° F. The preheated soap is sprayed by means of rotating nozzles onto the inside wall of a vertical cylindrical flash-chamber maintained under a vacuum of 28-29 in. Hg (20-40 m/m absolute pressure). A continuous equilibrium vaporization occurs, namely the water of the fed soap is partly vaporized at the expense of sensible heat, while at the same time the soap cools down to the equilibrium temperature corresponding to the pressure in the flash-chamber, that is about 80°-90° F. The dried and cooled soap in the form of a thin film, is continuously scraped from the wall of the chamber by means of a scraper which revolves just ahead of the spray nozzles. The soap flakes fall to the bottom of the chamber where they are compressed by a specially designed screw which expels the soap through a heated, perforated plate in the form of cylindrical soap chips. The vapors leaving the flash-chamber pass through a suitable cyclone, where the dust particles are collected, and then to a barometric condenser of a standard type. The vacuum is maintained either by means of a steam-jet ejector or a mechanical pump of standard design.

This method of drying differs clearly from that employed as first step in the Mills process (2), in which the neat soap is reduced to a moisture content of about 20 percent, by being heated to 400° F. under suitable pressure and sprayed into a flash-chamber at about 200°F. The temperature of the vacuum-flashed soap is between an average of 80-90°F. in the Mazzoni process, which produces solid soap at once. The use of vacuum insures a temperature drop large enough to reduce the moisture content to between 10-14 percent, as is required for toilet soaps or soap flakes, without exceeding the preheating temperature.

By a simple variation in the operation of the plant, the soap film, which has been sprayed onto the wall of the flash-chamber, can be heated by means of a hot water jacket to produce a further drying. This procedure permits the use of an even lower preheating temperature.

Drying Differences

FROM the physical standpoint there is obviously a fundamental difference between the standard process of drying a solidified soap in a hot air current and the process of drying and cooling of soap by vacuum flashing. In the first case the evaporation takes place mainly on the surface and is sustained by the diffusion of water through the soap. In the vacuum flashing process, the moisture vaporizes instantaneously from the bulk of the incoming soap which is simultaneously cooled and solidified. The vaporization of water and the sudden expansion of the water vapor produce considerable atomization and turbulence which largely assist mass transfer and allow the solidified soap and the escaping vapor to be substantially in equilibrium. It also seems probable that the strong internal agitation of the soap mass during flashing will favor nucleation from the molten soap in analogy with the known phenomena of crystallization (3). In fact, in spite of some orientation of soap micelles that is to be expected in the extrusion step, the plodded soap cylinders are relatively opaque in appearance. The relative opacity of this flash-dried soap is probably due to a process of crystallization characterized by strong nucleation and extremely slow growth of crystal elements (4). Under these conditions there must result a great number of very fine crystals intimately felted, as is also evidenced by the homogeneous texture and the high yield value of the soap obtained.

On the other hand, because of the final relatively low temperature of the process, the equilibrium condition corresponds to the nearly total crystallization of soap. In the graph of Fig. 1 the process of vacuum flashing of a soap is related to the binary phase diagram of McBain and Lee (5) for commercial toilet soap. In this temperature - soap - in - water concentration-system the flash drying can be represented as an adiabatic process by the line AB, while the successive step of drying by heat transfer through the soap film on the inside

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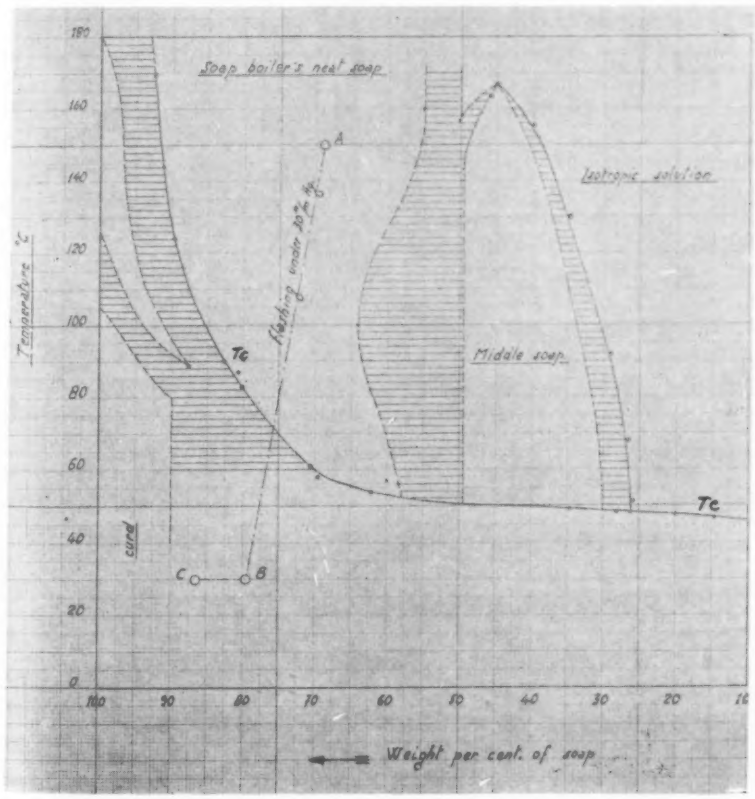
Busto Arsizo, Italy

wall of the flash-chamber (according to the variation of the operation described) is represented by the isotherm line BC. Since the fields of existence of the various phases may vary for the different soaps, it is well understood that the use of the diagram is only for the purpose of arriving at qualitative deductions. The coordinates of the point A represent the conditions of the preheated neat soap which reaches the spray nozzles: temperature and percentage of soap, while the coordinates of C represent the conditions of soap which leaves the process. This point is to be found in the heterogenous zone of the diagram, in which crystalline soap may co-exist with isotropic or anisotropic solution. The system has, therefore, two independent components (water and soap) and two condensed phases, besides the vapor phase.

According to the phase rule the said system has only one degree of freedom: for every temperature there are two condensed phases in equilibrium whose compositions are to be found on the boundary curves in the respective points of intersection with the horizontal line which defines the temperature. The vapor pressure also remains defined and is that of the liquid phase of the soap in equilibrium with crystalline soap, at the temperature being considered. Although the phase diagram for commercial toilet soap is incomplete in the region of low soap concentrations, it is to be expected, on the grounds of similar behavior of all soap-water systems (5), that the right end of the boundary line turns down rapidly as soon as a temperature of about 40° C is approached, viz. it is a significant property of the water-soap systems that starting from "Krafft point," which for most commercial soaps is just about 45 to 55° C, the boundary between soap solution and crystalline soap (curd) is nearly horizonal and a slight change in the temperature is accompanied by very large change in solubility. Thus, for example, in the case of a commercial soap of tallow and coconut oil the solubility at 48° C is about 25 percent; at 45° the solubility is only 2 percent (6). If a solid crystallized soap is heated to a temperature only just above that of its "Krafft point" there is a considerable reversion of the crystalline phase in the liquid phase of soap which is stable under the temperature in question. In the process of drying under consideration, the final temperature of the soap is decidedly lower than the "Krafft point" and the only phase of the soap capable of co-existing in stable equilibrium, together with the crystalline soap, is the diluted isotropic solution; it follows that the soap tends toward an equilibrium state characterized by almost total crystallization.

FIGURE I



It seems, therefore, probable that in the process under consideration two factors co-operate to cause formation of a fine crystalline structure: the one of kinetic nature (nucleation) and the other one of potential nature that is the supersaturation with regard to the equilibrium conditions (which acts as driving force.)

However, this does not mean that the process of crystallization takes place completely during the flashing step; nevertheless, the opaque appearance of soap as it leaves the dryer would exclude the possibility of a considerable degree of undercooling—at least for normal soap compositions. Evidently the degree of crystallization of such a metastable system depends also on the nature of the fatty acids. Experimental evidence proved, for instance, that branched chain fatty acids (such as are present in synthetic fatty acids) tend to give soap which crystalizes with more difficulty. Also it has been observed that even with fat charges of relatively high iodine

value, the structure of the soap undergoes a rapid improvement after drying, during storage. This phenomenon is probably due to the fact that the soap is strongly disseminated with nuclei. As I have pointed out above, in order to favor the best development of the crystalline structure it is necessary that soap be put into storage at the lowest possible temperature. We will return to this important question.

A soap at about 30 percent moisture prepared from tallow and coconut oil and cooled by frames or other similar systems, gives a sparing lather. The same soap dried, milled and plodded, namely transformed into toilet soap, freely gives a much denser lather than the starting soap. The improvement is due to a change in the structure of soap rather than to an increase in concentration. The works on the polymorphism of soap crystals have thrown some light upon this behavior. It is now recognized that in framed soaps, which are solidified without agitation, the relatively low soluble "omega" phase is the one chiefly obtained. On the other hand the predominant form of milled toilet soap is the "beta" form, which is a readily soluble solid soap phase; conversion from "omega" to "beta" form is produced by milling and plodding. As a general statement, the working or agitation of soap below Tc (temperature at which clear anisotropic or isotropic liquid precipitates soap crystals — fig. 1) will favor the formation of "beta" phase — at least for soaps of normal composition.

Now the soap dried by flashing under vacuum, even if made from fats of high titer, for example with tallow only, freely gives a dense, greasy and soft lather, even before milling. X-ray diffraction patterns of samples of these soaps are in accordance with this behavior in that they show distinctly the ring of the "beta" phase. In some samples the ring corresponding to the "beta" phase (lattice spacing 2.75 A") is even more intense than that corresponding to the "omega" phase (lattice spacing 2.95 A"). Newly carried out experimental researches by Procter & Gamble Co., Cincinnati, and the Milan Polytechnic Institute have, in fact, proved that samples of soap made with the Mazzoni process showed up to 100 percent. "beta" phase. However, as it has recently been pointed out (7), it is possible that at least sometimes not only the "beta" phase is responsible for good lathering of a soap. In any case it is certain that from the excellent lathering quality and smoothness of soap, a favorable structure is obtained in the process of flashing under vacuum. These conditions, together with the uniform drying, notably simplify the milling operation.

On the basis of the experience of the recent years, it is possible to obtain in certain conditions of work, soaps easily transformable into transparent products by means of appropriate mechanical working in a suitable plodder. The structure of transparent soap is not yet well understood, but it seems probable that some reduction of the crystal size and orientation of crystalline elements occur by plodding. By this procedure transparent soaps of medium and high concentration are obtained.

In the flashing step some objectionable volatile impurities are carried away from the soap by the escaping vapor. Particularly observed has been the disappearance of the sulphurous odor of soap bleached by sodium hyposulfite.

Vacuum Drying Advantage

FROM the chemical standpoint, the drying under vacuum gives considerable advantages over normal hot air drying. The preheating of the soap takes place in the absence of air and the time of exposure of the soap to the preheating temperature is very short. During the whole drying process there is an absence of oxygen and carbon dioxide.

The chemical changes which can take place in the hot soap in the presence of air are principally of two types. The first is a carbonation of free alkali and of the alkali of soap hydrolysis which can occur in particular in the dryers with large air circulation. On the surface of the soap chips more exposed to the action of the air even a separation of fatty acids can take place which, being in a state of fine dispersion in the soap, can produce rancidity. The second type of change is an oxidation reaction which takes place when soap is subjected to too high a temperature in the presence of air. The danger of this change exists especially when soap is dried on hot rolls; in consequence of this oxidation the soap may become discolored. These changes cannot occur when the drying takes place under vacuum. Nevertheless, the knowledge of the conditions under which they may manifest themselves is important in order to avoid them in the further steps of working and more particularly during the storage of dried soap. It is usual practice to store the dried soap for some time in order to render it more homogeneous in moisture content and to allow at the same time a "maturing" of the soap. Although the vacuum flashing process gives a uniformly

In vacuum drying, time of exposure of soap to preheating temperature is shortened. No carbon dioxide or oxygen is presented during drying.

dried soap, nevertheless on the basis of what has previously been stated with regard to the physical structure, it is recommended to store the soap for some time; a low temperature of chips is necessary in order to favor the process of crystallization and to avoid any detrimental changes. A high temperature increases the permeation of water through the soap and may produce sweating on the chips surface; this water (or rather soap solution) tends to carry out a fraction of the free alkali which comes to the surface and thus is exposed to carbonation. Finally a high temperature favors oxidation on the surface of the chips. However, the necessity of storing the soap at a low temperature arises with soap dried by all systems.

The temperature of the extruded soap chips is between 80° and 90° F and depends on the titre of the fat formula and the percentage of moisture in the soap. A further cooling of the chips is recommended, especially with soap having a lower moisture content or a high titre for which the temperature of extrusion must be at least 85° F or thereabouts. It is not necessary to have any type of machine such as chilling rolls for cooling. It is sufficient to cool the soap by air circulation, say by conveying the soap pneumatically from the vacuum dryer to the storage area; if the chips are conveyed by a belt conveyor or a bucket elevator it is recommended to cool by circulation of air by means of a fan. The chips obtained from the vacuum flash-dryer are pellets of about 0.3 in. diameter and have for a given weight a much smaller surface than dried chips of common conveyor dryers; because of this there is no reason to fear carbonation in consequence of exposure for a short time to air currents. The low specific volume of cylindrical chips (45-50 lb. per cu. ft.) in comparison with the chips of common conveyor dryers (10-15 lb. per cu. ft.) means a great economy in storage space. It also avoids the storage in the bins of a great amount of air together with the soap, which could bring about the consequent danger of oxidation. The uniform drying of the soap also eliminates trouble which may occur when particles of toilet soap are overdried.

Moreover the process of flash drying under vacuum represents the ideal solution of the problem of drying from the standpoint of heat economy, in as much as all the calories supplied to the soap are utilized for the vaporization of the water in the flashing step and in practice the heat losses are almost negligible. From tests taken during normal production of a plant having a capacity of 1,500 pounds per hour the following figures were obtained:

Plant Requirements for 1000 *Pounds of Dried Soap*	
Steam 100 p.s.i.	180 lbs.
Electrical power	8 kwh
Water at 70° F	4000 gal.

In this plant the vacuum was produced by a mechanical pump.

According to data of technical literature (8) a modern conveyor dryer having a capacity of 1800 pounds (800 kg.) per hour requires 500 pounds of steam and 11.4 kwh. for 1000 pounds of dried soap. The water required for the chilling rolls is about the same as required by the Mazzoni plant.

The amount of dust entrained with vapors leaving the flash chamber is from one to two percent calculated on the dried soap for a plant having a production of 1500 pounds per hour and working under 30 m/m Hg of pressure. This dust is collected in an efficient cyclone. The dust not collected, and representing an effective loss of soap in the water leaving the barometric condenser, has been established at about 0.04 percent under the conditions described above.

By regulating the preheating temperature of the soap and the vacuum in the vacuum flash-chamber, soaps with any given moisture content can be produced as has been described in another article (9). It is also possible to work soap with builders such as sodium silicate, tetrasodium pyrophosphate, and also CMC. The same plant can produce toilet soap, soap flakes and laundry soap. In this last instance the soap is expelled by the plodder in the form of a bar which is cut by an automatic cutter. A suitable conditioner, operating continuously, in a short time, can produce a soap ready for stamping and packing. Because of their structure these soaps do not become deformed in storage, even in a dry climate. This possibility is also interesting to makers of toilet soap who often utilize the niger curd to make low grade soap. This soap can be transformed into laundry soap bars without the use of frames or other cooling devices.

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Handles Nippon Soda

Rosenthal Bercow Co., New York, has been appointed exclusive representative for the Nippon Soda Company's brand of calcium hypochlorite 60% and 70%. Warehouse stocks are being maintained at various points for distribution throughout the United States.

Nippon Soda Co. is one of the leading companies in the Japanese chemical industry.

Rosenthal Bercow Co. has been distributing drugs, chemicals, oils and waxes for the past 35 years to all phases of the chemical and allied trades.

New P&G Headquarters

DETAILED plans for a modern 11-story headquarters building, which Procter & Gamble Co., will erect in the heart of downtown Cincinnati, were revealed recently by Neil H. McElroy, P&G president. Located at Sixth and Sycamore Streets, one block from the site of the small factory and shop in which the company was founded 117 years ago, the new building will provide 320,000 square feet of office space. Construction will get under way this winter, with occupancy scheduled for the fall of 1956.

Thus, within a period of less than five years the three leading U. S. soap and detergent companies will have moved into new headquarter offices. Lever House, head office building of Lever Brothers Co., was opened in New York City in May, 1952, when the firm moved from Cambridge, Mass. Colgate-Palmolive Co., moves from Jersey City, N. J., headquarters to a new office building on Park Ave., New York City, just a few blocks south of Lever House, next year, and P&G will transfer its headquarters from the Gwynne Building in Cincinnati in 1956.

The new Procter & Gamble headquarters building will be as modern as tomorrow, with air and humidity conditioning equipment, escalators and electronic elevators, a vertical conveyor for the distribution of mail, a snow melting system beneath the sidewalk, reversible windows that can be cleaned from the inside and provisions made for the installation of electronic business machines and "electric brain" computing equipment. Finally, as part of the company's long-range planning, the building has been designed so that a rooftop landing area for helicopters can easily be installed. As rooftop landings prove practical, Procter & Gamble can become one of the first companies in the U. S. to employ helicopters in

This architect's drawing of Procter & Gamble's new headquarters shows the building as it will appear in downtown Cincinnati, only one block from the site of the small factory and shop in which soapmaker James Gamble and candlemaker William Procter founded the firm 117 years ago. Since then, the business has grown from a two-man operation to a world-wide enterprise employing 23,000 people. The structure, to be located at Sixth and Sycamore Streets, is expected to be ready for occupancy in the fall of 1956.

a day-to-day business role. Its new headquarters building is the first office building in Cincinnati to be equipped with escalators.

In announcing the plans for the new structure, Neil McElroy, Procter & Gamble president, stated that the steady growth of the company has made the new general office building necessary. P&G has occupied the Gwynne Building in Cincinnati since 1914, then as only one tenant. The firm now occupies the entire Gwynne building, plus two adjoining smaller buildings, and is still cramped for space.

When the decision to build the new headquarters was made, company officials were determined to avoid the gradual overcrowding that had accompanied past growth. In 1920, P&G's general office staff numbered 400 people. Since then employment has risen to 1,200, an increase of 200 percent.

In evaluating proposed sites, Procter & Gamble decided against a move to the suburbs, because company employees live in all sections of the city and the downtown location provides transportation convenience for the greatest number of them.

The exterior of the building will be "modern and progressive, but neither modernistic nor bizarre," according to the company announcement. Architecturally, the exterior design will reflect the building's functional interior as well as Procter & Gamble's corporate character. From a well-founded base of polished granite, the building's clean sharply defined body of limestone will rise to the natural crown of white marble which will sheath the top floor. The building's color will follow a gradual relating transition from the dark grey of the granite through the grey-white of limestone to the glistening white of the marble.

Setting the architectural tone of the building will be a spacious lobby, 144 feet long and 36 feet wide. It will feature a warm color scheme of terra cotta marble walls and a greyish-blue stone floor. An exterior wall of glass panels—separated by strips of stainless steel — will permit the interior design and color scheme to be seen from the street. Topping the glass walls, and extending slightly over the sidewalk, will be a canopy of bronze.

In effect the building has been designed from the inside out. Instead of planning a structure and then dividing its space among different departments, the architects based their designs on the present and future space requirements of each department. These requirements, when meshed, ultimately determined the size and shape of a building best suited to the company's day-to-day activities.

As the basis for their planning, company executives and architects studied both company wide and departmental growth during selected five-year periods in the company's history. Weighing these findings with the company's prospects and plans for the foreseeable future, they estimated the number of workers who would be in each department. Extensive studies on work flow and foot-traffic were conducted to determine the best location for each department, and allowances were made for technological improvements in business equipment. Upon occupancy each department will be assigned to an area large enough to provide for its expected growth.

Flexibility within individual departments will be achieved by the use of moveable, metal partitions throughout the building. In this way, rooms can be set up as needed, or the walls can be removed to provide for the addition of open work areas.

Other features designed to provide pleasant, comfortable, efficient surroundings for employees will include the latest air conditioning equipment and accoustical treatment of all ceilings. To avoid any sense of crowding, ceilings are 9′ 10″ high.

Neil McElroy, president of Procter & Gamble Co., points out interesting features of the company's new 11-story headquarters building to be constructed in downtown Cincinnati, Ohio. The architect's model shows the modern, functional exterior styling of the building, which will feature a base of polished granite, a body of limestone, and white marble facing on the 11th floor. The building will contain about 320,000 square feet of office space and is expected to be ready for occupancy in the fall of 1956. Procter & Gamble bypassed the current trend among companies toward suburban offices by deciding to build near the heart of downtown Cincinnati.

Determination of Lanolin in Powdered

By R. Bernstein, M. Haftel and R. Grant

A CURRENT specification for mechanic's powdered hand soap(1) includes a soap-lanolin-vegetable abrasive type with a specified minimum lanolin content of 3.0 percent.

The procedure used for the determination of lanolin is practically identical with that described in a specification for soap-borax mixture.(2) Briefly, the method is as follows: An aqueous solution of the hand soap is acidified to release fatty acids, lanolin and fatty acids are extracted with petroleum ether, the ether is evaporated and the residue is dissolved in chloroform, the chloroform solution is reacted with acetic anhydride and sulfuric acid, and the resultant color is compared in an optical comparator with that developed by a known solution of lanolin treated similarly. The intensity of color is dependent upon the cholesterol content of the solution which, in turn, is dependent upon the lanolin content of the sample.

Difficulties with this method have been experienced in our laboratory and apparently elsewhere also since critical comments and suggested alternate procedures have been received by the Bureau of Ships, Department of the Navy, which is technical custodian of the specification. The Industrial Test Laboratory was therefore requested to evaluate both the specification and alternate procedures, and, if necessary, to develop a reproducible and accurate test for lanolin in mechanic's powdered hand soap.

The most serious difficulty with the specification method was the poor extraction of lanolin and fatty acids from the aqueous phase containing a considerable amount of the insoluble corn meal abrasive. If the abrasive was first filtered off the extraction was improved somewhat but was still inaccurate since sharp separation of the ether-water layers did not occur. Voluminous semi-rigid films were observed at the interface in which the presence of cholesterol was verified. Lanolin is an efficient surface active emulsifier and its adsorption at solvent-water interfaces is therefore to be expected.

Since the proposed procedures suggested to the Bureau all involved extraction of lanolin and fatty acids from an acidified aqueous solution of the hand soap and differed only slightly in details of the color-forming reaction between cholesterol and acetic anhydride-sulfuric acid, these methods were not further investigated.

To avoid the difficulties described above, a method was developed which consists in extracting the lanolin directly with petroleum ether in a Soxhlet unit, reacting the lanolin with acetic anhydride-sulfuric acid in the usual way and determining the color intensity by means of a photoelectric colorimeter. A correction factor is necessary for matter reacting as lanolin extracted from the soap and corn cob meal components of the product. A description of the method and results obtained follow:

Method

Apparatus — Klett-Summerson photoelectric colorimeter

The colorimeter is used with a K. S. No. 66 glass filter (approximate spectral range 640-700 milli-

Hand Soaps

Industrial Test Laboratory
Philadelphia Naval Shipyard

microns) and a 12.5 mm. test tube cell. It is adjusted to zero, using chloroform as a blank. Any other instrument capable of the necessary photometric measurements in the above spectral range may be used. *Standard lanolin solution* — Weigh accurately 0.200 gram of U. S. P. anhydrous lanolin into a 50-ml. beaker. Dissolve the lanolin in chloroform and transfer to a 200-ml. volumetric flask. Rinse the beaker with several portions of chloroform, add rinsings to volumetric flask and then make up to volume with chloroform. Each ml. of standard solution contains 1.0 milligram of lanolin. *Procedure*— Accurately weigh 10 grams of the well-mixed detergent into a Soxhlet extraction thimble. Extract with petroleum ether in a Soxhlet unit for three hours. Evaporate the petroleum ether solution to dryness on a steam bath. Dissolve the residue in chloroform and transfer quantitatively to a 250-ml. volumetric flask. Make up to volume with chloroform.

Pipette 10 ml. of the chloroform solution into a 50-ml. glass-stoppered graduated cylinder. Add chloroform to the 25-ml. mark exactly. Cool the cylinder in an ice bath for five minutes. Pipette 10 ml. of acetic anhydride into the cylinder and then add concentrated sulfuric acid dropwise from a one-ml. graduated pipette at a rate of two drops per minute for seven minutes and three drops per minute for the next three minutes, stoppering the cylinder after each acid addition and mixing thoroughly by inverting several times. Keep the cylinder in the ice bath between additions of acid. Remove the cylinder from the bath and store in a dark place for exactly 20 minutes and then read the color intensity in the colorimeter.

Prepare a standard calibration curve as follows: Pipette 3, 6, 9, 12 and 15-ml. aliquots of the standard lanolin solution into separate 50-ml. glass-stoppered cylinders. Add chloroform to the 25-ml. mark exactly and develop and read the color as described above. The standard curve is prepared by plotting colorimeter readings as ordinate vs. lanolin content in milligrams as abscissa.

Repeat the procedure, starting with the Soxhlet extraction, on accurately weighed separate 10-gram samples of the vegetable abrasive and the soap used in the finished product. The results for these ingredients are used as correction factors in the lanolin calculation.

Calculation—Compute percent lanolin in the sample by the following equation:

$$\text{Percent lanolin} = 2.5 \left(\frac{A}{B} - \left(\frac{C \times D}{100E} + \frac{F \times G}{100H} \right) \right)$$

where

A = miligrams of lanolin in sample of product (from standard curve)

B = weight of sample in grams

C = milligrams of "lanolin" from sample of soap ingredient

D = percent soap in product

E = weight of soap (in grams) used to determine C

F = milligrams of "lanolin" from sample of vegetable abrasive ingredient

G = percent vegetable abrasive in product

H = weight of vegetable abrasive (in grams) used to determine F

Results

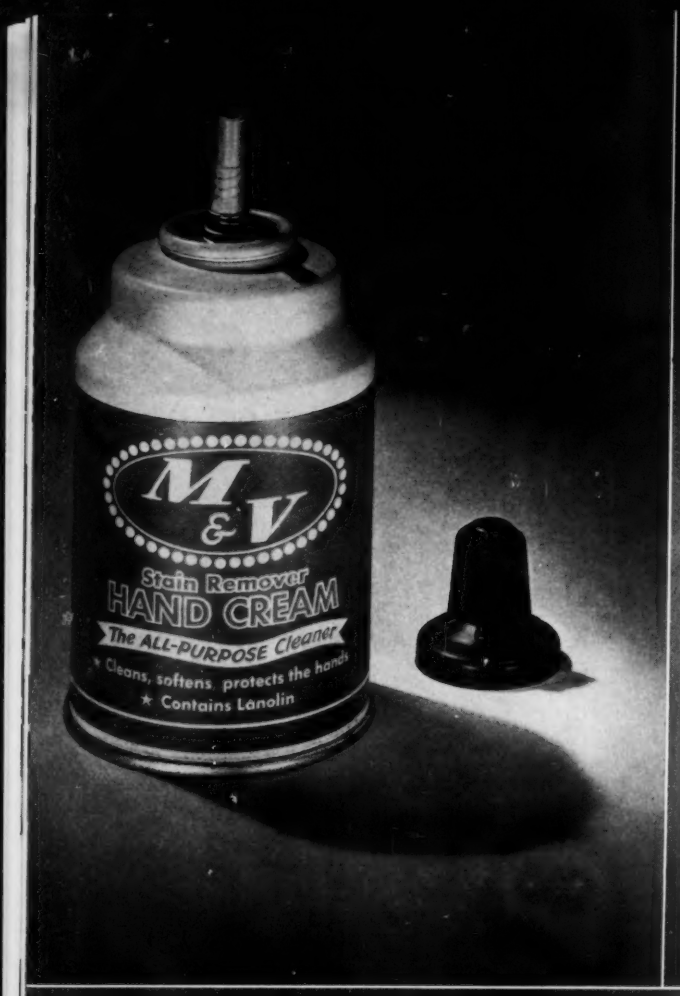
INITIAL determinations on a sample of specification hand soap gave 3.10 and 3.15 percent lanolin in duplicate determinations. To check the validity of the method and to obtain additional data on its reproducibility, a hand detergent containing known amounts of ingredients was prepared in the laboratory. The formulation is given in Table 1.

Table I. Composition of Laboratory Prepared Detergent

Ingredient	Percent by Weight
Corn cob meal	55.0
Powdered laundry soap[3]	42.0
Lanolin, U. S. P. anhydrous	3.0

110.0 g. of corn cob meal and 84.0 g. of soap were placed in a laboratory powder mixer. The soap used was a high titer product containing 89 percent soap minimum and no rosin. 20 ml. of an accurately prepared lanolin solution containing 60 g. of lanolin in 200 ml. of chloroform solution were slowly added from a pipette to the blender while in operation. The batch was stirred for one hour, the mixer being stopped from time to time to break up lumps. The product was removed from the blender, spread out in a shallow pan to hasten evaporation of chloroform, and then mixed thoroughly by hand. This batch was labelled "A." Similarly, two more batches, "B" and "C," were prepared using a different brand of corn cob meal and a different sample laundry soap.[3] The lanolin content of these products was determined by the method described above. In addition, blank determinations on the soaps and the corn

(*Turn to Page* 106)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WHAT'S NEW?

Captions, Facing Page

New "M&V" aerosol stain remover hand cream of Mittag & Volger, Inc., Park Ridge, N. J. Cream is designed for use by office personnel to remove hectograph, multigraph, mimeograph and typewriter inks, paints, grease oils, etc. Ten-ounce container retails for $1.50. Filled by Sprayon Products, Inc., Cleveland.

"Double Play," new novelty soap of Mem, Inc., New York, features castille soap baseball and plastic glove, which doubles as soap dish. Colorful box resembles big-league baseball park.

"Bab-O" scouring cleanser is now available with bleach, it was announced last month by B. T. Babbitt, Inc., New York. In addition to regular 14-ounce and 21-ounce giant size packages for the household market, a "special institutional formula" 21-ounce package with a distinctive label is available for sales through wholesale, institutional jobbers and distributors of maintenance supplies. Sodium perborate is reported to be the bleaching agent used in the newest form of "Bab-O".

Newest addition to the line of Baird & McGuire, Inc., Holbrook, Mass., is "Lincoln" pine scent disinfectant and cleanser for sale through retail grocery stores. The new cleanser and disinfectant contains "Dytin," which is indicated on the label as a terpene hydrocarbon solvent. Pint bottle features four color: red, yellow, green, black label.

This Page

A new wax concentrate and patented applier was announced recently by Piatt & Smillie Chemicals, Inc., St. Louis. Known as "First" Wax Concentrate and "Econoplier," the combination can be used with any standard make or model of floor machine. The motion of polishing mechanically spreads the wax concentrate immediately ahead of the polish brush.

The "Econoplier" is not sold, but is furnished to "First" wax concentrate users for $1.50 per year, under standard lease arrangement. The wax concentrate sells to retail for $4.00 a pound.

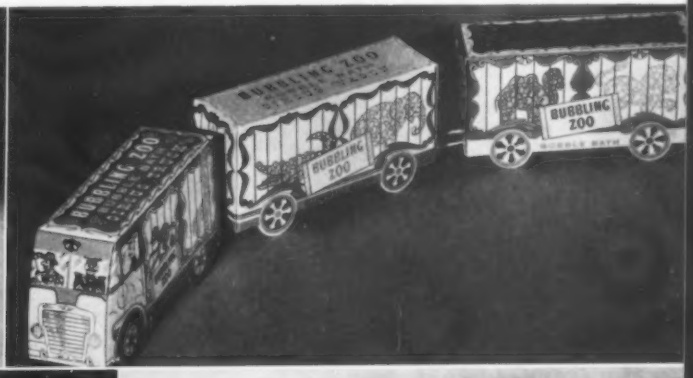
Newly packaged bubble bath in a family of three circus wagon cartons designed and made by Angelus Paperbox Co. division (Los Angeles) of Robert Gair Co., New York, was announced recently by Glenway Co., Glendale, Calif. A truck and two trailers, with cut-out wheels, have die cut holes whereby all three can be tied together to form a circus train. Different side lengths of the truck carton cause top flap to curve to resemble an actual truck motor and windshield. Several "foamy" animals are depicted on sides.

"Glayzit," new aerosol product for applying clean, bright and hard finish to tabletops, furniture, automobiles, etc., was announced recently by Hysan Products Co., Chicago. The can is a Crown Can Co., Philadelphia, "Spra-Tainer"; valve by Aerosol Research Co., Forest Park, Ill. Wrap around label features black type overprinting orange on gray.

New perfumed bubbling bath oil, "Petit Ballet" of Mary Sherman, Inc., St. Louis, is designed for use by children. Clear glass bottle carries illustrations in pink ceramic colors showing children in ballet costumes. Pink Empress plastic closure and bottles are by Owens-Illinois Glass Co., Toledo. Individual folding cartons in matching green and pink shades are by Superior Folding Box Co., St. Louis.

"Preenet" emulsion paste wax has been added to the line of A. S. Harrison Co., South Norwalk, Conn. The wax is now available in both paste and liquid forms. The paste retails for 89 cents, $1.49 and $3.29 in one, two and five pound containers, respectively.

"Burn Ease" (inset) new aerosol antiseptic of Tru-Pine Co., Chicago, also functions as an anesthetic. Designed for protection and relief of pain from sunburn, cuts, scratches and bruises, "Burn Ease" retails for $1.29 in a five ounce container.



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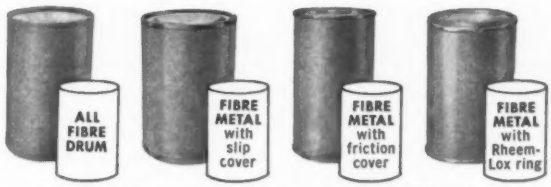
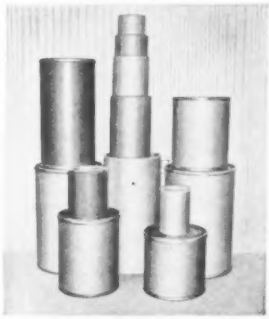


Choose the type that best fits your needs — All-Fibre drums, or Fibre-Metal drums with steel bottoms with either slip or friction covers or with the new, easy to install and remove Rheem-Lox ring. Only Rheem offers all these types of low cost containers.



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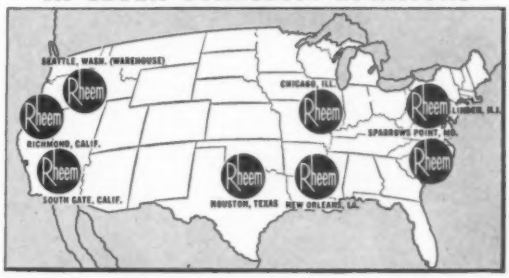

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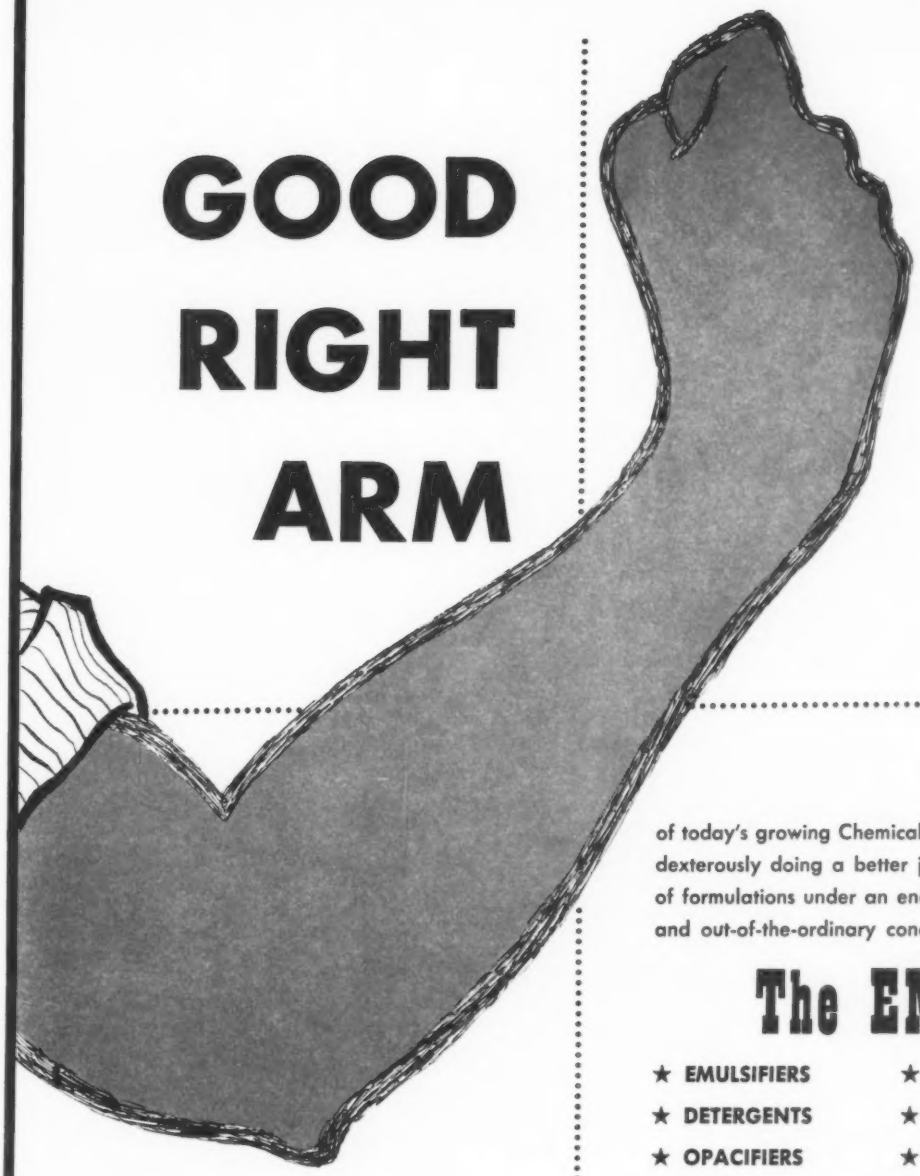

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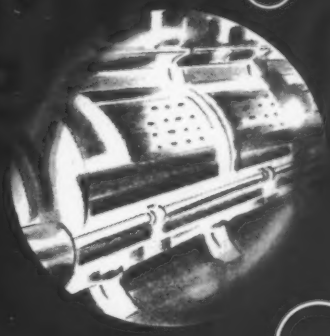

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News

Soapers Meet Jan. 26-28

The three-day annual convention of the Association of American Soap & Glycerine Producers is set for January 26 through 28 at the Waldorf Astoria Hotel, New York. Soap and detergent merchandizing will be the main subject on the program for the 27th and 28th. The first day will be devoted chiefly to the technical aspects of the fatty acids field and to the production of chemicals from fats. Divisional meetings will be held on glycerine, on industrial soaps and detergents, and on specialty soap products. The banquet is scheduled for Friday evening January 28. The 1955 Maid of Cotton fashion show will be held the afternoon of January 27.

—★—

Davies-Young Names Three

Davies-Young Soap Co., Dayton, O., recently announced the appointment of three new representatives for the soaps, waxes and cleaning agents which the firm produces for industrial and institutional use. Eugene L. Wayne will cover the territory ranging from New York to North Carolina along the eastern seaboard. Robert J. Terry and Joseph R. MacLaren are joint representatives for eastern New York State.

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P&G Leases French Plant

Completion of arrangements to lease synthetic detergent production facilities in France were announced in mid-October by Procter & Gamble Co., Cincinnati. P & G president, Neil H. McElroy, announced that his company is leasing the facilities of Etablissements Fournier - Ferrier of Marseille, France. The lease arrangement, which involves production and packaging equipment at Fournier-Ferrier's Marseille plant, will extend for 30 years.

This is Procter & Gamble's first manufacturing activity in France, and it will be handled by a newly-formed subsidiary company to be known as Procter & Gamble France, S.A.

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Soap Industry Summary

A thumbnail sketch of the soap industry, its present status, and trends in world-wide soap consumption and production, are contained in a 28-page booklet announced recently by the Association of American Soap & Glycerine Producers, Inc., New York. The booklet, which is based on a talk given by Roy W. Peet, manager of the Soap Association, at the 1952 short course of the American Oil Chemists Society at Rutgers University, New Brunswick, N. J., has been brought up to date, as of Sept., 1954. Aims and functions of the association are listed in the booklet, which is available by writing the Soap Association at 295 Madison Ave., New York 17, N. Y.

"Bab-O" With Bleach

A reformulated version of "Bab-O" scouring cleanser that contains bleach is to be marketed shortly B. T. Babbitt, Inc., New York, announced in mid-October. In its new form, "Bab-O" will be available in 21-ounce giant size cans for distribution to institutional wholesalers, institutional jobbers and distributors of maintenance supplies. This package will not be sold in the grocery field. There will be a new grocery pack of "Bab-O" with bleach, which is being introduced with television, radio and newspaper advertising.

The new institutional "Bab-O" is packed 24 giant size cans to the case. Minimum shipments are 10 cases, and the price is $2.75 per case. As a special introductory offer, one free case of new institutional "Bab-O" is included with every 10 cases ordered. A photograph on the new "Bab-O" giant, regular and industrial container appears on p. 50.

John H. Breck, Jr., executive vice-president; Thomas M. Glynn, production manager; and J. Earl Bartlett, Post Exchange and Ships Service representative of John H. Breck, Inc., Springfield, Mass., were among the passengers on the inaugural flight of United Airline's new direct service from Bradley Field, Conn. to Los Angeles, recently.
Mr. Breck, Mr. Glynn and Mr. Bartlett, (right to left) visited the West Coast for a business trip, spending a week in Los Angeles and a week in San Francisco before returning to the home offices in Springfield, Mass.

GAIR can help

MERCHANDISE YOUR PRODUCT

with sales-appeal DISPLAY

With Gair display stands working for you in retail outlets, it's like having a company salesman in every store. The mass presentation of your product commands the attention of passing shoppers . . . the constant repetition of your sales message stimulates the urge to buy.

Do you want to introduce a new product? Pep up the sales of a standard item? Push a combination deal? Gair display stands will help.

Designed for long and useful promotional life, these stands are sturdily constructed of corrugated board and are attractively printed. For greatest visual impact, you can have your sales story printed in more than one color on a contrasting background color of your choice.

Check with the Gair plant nearest you to learn which of the many styles will make a perfect setting for your product. Learn, too, how Gair's assured supply source, design ability and delivery service help give you the best in corrugated display aids.

CAMBRIDGE, MASS. • CLEVELAND, OHIO • HOLYOKE, MASS. • MARTINSVILLE, VA. • NO. TONAWANDA, N. Y.
PHILADELPHIA, PA. • PORTLAND, CONN. • RICHMOND, VA. • SYRACUSE, N. Y. • TETERBORO, N. J.

GAIR

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PAPERBOARD

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Haas to ADM Board

The election of Frank C. Haas to the board of directors of Archer-Daniels-Midland Co., Min-

Frank C. Haas

neapolis, was announced recently following the firm's annual meeting of stockholders. All other directors and officers were reelected.

Mr. Haas is a resident of Cleveland, headquarters of the ADM chemical products division. He joined the company in 1929 as chemical director of the ADM Wyandotte, Mich. plant. Following several promotions, he was elected a vice president in 1950. He is a native of Union City, N. J., and studied chemical engineering at Columbia University.

Mr. Haas is vice-chairman of the steering committee on fatty acids and a member of the steering committee for glycerine of the Association of American Soap and Glycerine Producers.

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New Udet Detergent

The development of a completely new, high active alkyl aryl sodium sulfonate in liquid or powder form was announced recently by Universal Detergents, Inc., Long Beach, Calif. New "Udet" is available as a 50 percent active free flowing liquid, and as a 90 percent active granular powder. The product is claimed to have high foaming properties, good detergency, excellent rinsability, low surface and interfacial tension, and to be a good wetting agent.

The liquid form flows from drums and tank cars without heating, scraping or cleaning, and is handled through conventional pipelines and pumps. The liquid form is suggested for use as a base for formulating liquid dishwashing compounds.

The powder is granular, free-flowing and mixes readily and uniformly with builders. Its high active content permits the use of a greater percentage of phosphates and more flexibility in selecting builders in formulation.

Less than carload shipments are made in 55 gallon drums, net weight approximately 500 pounds, and priced at 15 cents a pound, f.o.b. Long Beach. The powder is packed in 200 pound fiber drums and priced at 30 cents a pound, delivered. Tank car price is quoted on request from the eastern sales office in the Graybar Building, 420 Lexington Ave., New York 17, N. Y., or 1825 East Spring St., Long Beach.

—★—

Kass Research Director

The appointment of Gus S. Kass as director of research for Consolidated Cosmetics, Inc., Chicago, was announced recently by Karl K. Kaempfer, president. In his announcement, Mr. Kaempfer stated that Mr. Kass is to conduct an expanded research and development program for Consolidated, which makes its headquarters at 30 W. Hubbard St., Chicago 10.

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R & H Amines Bulletin

A 31-page bulletin (#SP-33), dealing with tertiary-alkyl primary amines was published recently by the Special Products Department of Rohm & Haas Co., Philadelphia. Physical and chemical properties of tertiary butylamine, tertiary octylamine, "Primene 81-R," "Primene-JM-T," and "Primac JMA-T" are described. Among applications suggested for these products are corrosion inhibitors, herbicides, insecticides, bactericides, fungicides, surface-active agents, automotive fuel additives, etc. Chemical reactions of t-butylamine and t-octylamine are discussed.

Wyandotte Names Brunner

The appointment of Horace C. Brunner as manager of the Chicago office of Wyandotte Chemicals

Horace C. Brunner

Corp., Michigan Alkali Division, Wyandotte, Mich., was announced recently. He was formerly assistant manager of the Chicago office. Mr. Brunner has been with Wyandotte since 1930. For six years he was manager of the company's Detroit office. He also served as manager of distributor sales at the company's home office in Wyandotte, Mich.

—★—

P&G Odor Control Cost

Odor control measures have cost Procter & Gamble Co., Cincinnati, approximately one million dollars a year over the past nine years, it was disclosed by Virgil E. Gex, P & G engineer who spoke at the 82nd annual meeting of the American Public Health Association in Buffalo, October 14. Since 1945 the firm has spent more than $2,800,000 on new equipment for this purpose, plus annual maintenance expenses of $700,000 and the time of a special engineering department.

—★—

Pal Leases in Brooklyn

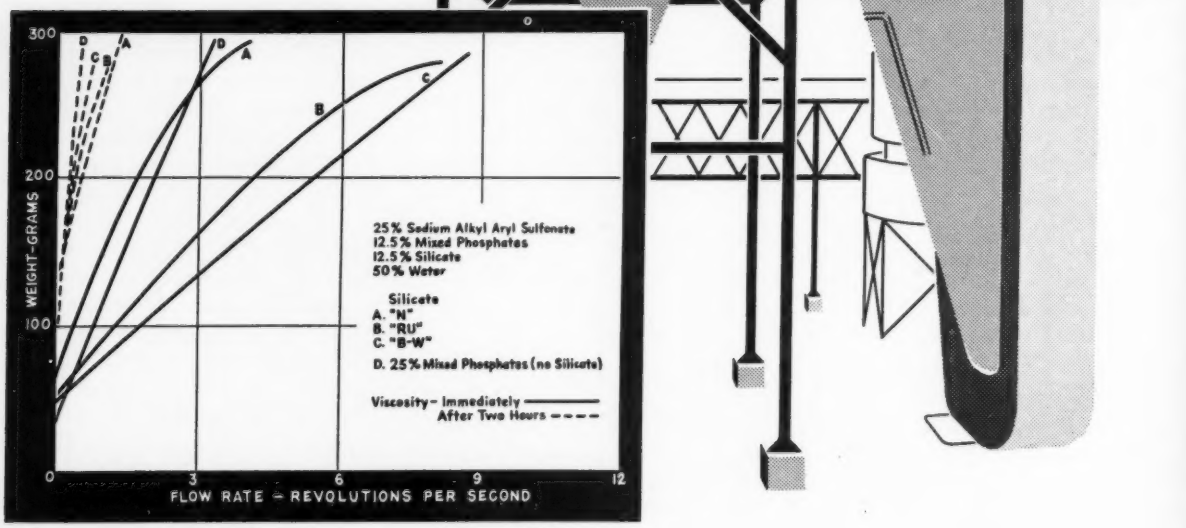
Pal Products Manufacturing Co., Brooklyn, recently leased a two-story factory building at King and Ferris Streets, Brooklyn. The building, which contains 30,000 square feet of floor space, will be used by Pal for the manufacture and warehousing of various types of cleaning powders.

Easy-flowing detergent slurries

Keeping slurries at the proper viscosity for spray drying is easier when PQ Sodium Silicates are used in synthetic detergents. Of particular interest are RU® Silicate (ratio 1:2.4) and B-W® Silicate (ratio 1:1.6); the lower viscosity slurries which they produce are plotted in the accompanying graph. You will want a copy of our study, "Viscosities and Solubilities of Synthetic Detergent Mixtures Containing Soluble Silicates." Ask for No. 1-17.

Along with this easy workability in the spray tower, you can count on PQ Silicates for increased detergent values and for the very important property of protecting metals from corrosive attack.

No wonder more and more synthetic detergents are being made with PQ Silicates in them.



PHILADELPHIA QUARTZ COMPANY
1152 Public Ledger Building
Philadelphia 6, Pa.

PQ® Soluble Silicates
METSO® DETERGENTS

Phelan Joins D&O

Matthew A. Phelan, formerly of Naugatuck Aromatics Division of United States Rubber Co.,

M. Phelan

H. Rodgers

New York, recently joined the sales department of Dodge & Olcott, Inc., New York. A graduate of Villanova University, Mr. Phelan has spent the past five years in the essential oil industry. Following a period of briefing in the Dodge & Olcott laboratories, he is to join the sales staff of the company's Philadelphia branch office. Mr. Phelan is a member of CIBS.

At the same time the company announced that Hatton B. Rogers, formerly director of technical service for Huron Milling Co., has joined the executive staff of D&O, as director of the dry solubles division.

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Detergents at Dairy Show

New developments in detergents for sanitation in dairies and milk processing plants were featured by Diamond Alkali Co., Cleveland, at its booth at the 19th annual Dairy Industries Exposition, held in Atlantic City, N. J., Oct. 25-30. The display focussed attention chiefly on new and improved Diamond cleaners for bottle washing, general cleaning, can washing and CIP and mechanical equipment cleaning.

Diamond personnel in attendance included: S. S. Savage, director of export sales, New York; J. C. Forsyth, manager of alkali specialty sales, Cleveland; C. W. Turner, supervisor of dairy industry sales, Cleveland; H. E. Reith, field sales and service representative, and J. E. and W. C. Davis, sales representatives, Philadelphia; C. E. Post, sales and service representative, Boston; W. F. Funke, sales and service, St. Louis; T. L. Poplawski, sales and service representative Chicago, and C. P. Egolf, sales and service representative, Lakeland, Fla.

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Milius Joins Millmaster

Howard E. Milius has became associated with Millmaster Chemical Co., New York, as manager of product development, it was announced recently by Robert J. Milano, president. Mr. Milius was formerly sales manager for Humphrey - Wilkinson, Inc., chemical manufacturers of North Haven, Conn.

Previously, for seven years, he was with E. I. du Pont de Nemours & Co., Wilmington, Del., as laboratory chemist and operating supervisor at its Rapauno Works, Gibbstown, N. J., and for two years as chemical supervisor for the Grasselli Chemicals Department, Grasselli, N. J.

Mr. Milius left du Pont in 1947 to work on new product development and as a sales engineer for Antara Chemicals, a sales division of General Aniline & Film Corp., New York. In 1950, he was appointed sales supervisor, a post he held until he joined Humphrey-Wilkinson in 1952.

A chemical engineering graduate of Massachusetts Institute of Technology, where he received a B.S. degree in 1938, Mr. Milius started his career as a quality control chemist with Deerfield Packing Corp., Bridgeton, N. J.

Howard E. Milius

In New Wyandotte Post

F. M. Zorn was recently appointed a technical service representative of the M. A. Division of

F. M. Zorn

Wyandotte Chemicals Corp., Wyandotte, Mich. Mr. Zorn, who has been with Wyandotte for 15 years, is a chemical engineering graduate of Case Institute of Technology. In his new post he is assisting Wyandotte's customers in the handling and use of Michigan Alkali Division products.

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New Whistlclean Cleaner

A new emulsifying type liquid cleaner for cold degreasing operations was introduced recently by Whistlclean Corp., New York. Trade-named "Petroclean D-25" the cleaner is said to blend readily with petroleum hydrocarbons. In such solutions it is recommended for manual cleaning operations, in soap tank or dip cleaning methods or in pressurized spray systems.

"Petroclean" is claimed to be economical, harmless to the skin and to painted surfaces, and safe in use because of a comparatively high flash point. Designed for use where heat and alkalis cannot be used, it can be employed as a one-operation cleaner, leaving a slight residual film as an interim rust inhibitor, or with a water rinse, where an oil-in-water emulsion is formed to remove the loosened soil. Suggested applications for the product include cleaners for industrial equipment, typewriters, and many other operations.

Deodorants with G-11®

(Brand of Hexachlorophene)

remove the cause of body odor

Soaps, detergents, creams, colognes, sticks and lotions containing G-11 are making dramatic sales increases because they combat the fundamental cause of body odor.

Body odor, particularly underarm odor, is caused by the action of skin bacteria on perspiration. Research has shown fresh perspiration to be odorless until it is contaminated with skin bacteria. G-11 combats these bacteria and thus removes the basic cause of the odor.

G-11 remains on the skin, even from soaps which are thoroughly rinsed off with water. Thus the deodorant action persists for days. Persons who have used deodorants with G-11 for three and four years show no immunity to their action.

Over seventy scientific articles, mostly by independent researchers, have been published over the last ten years attesting to the antibacterial and deodorant performance of G-11.

In addition, G-11 is not perceptible while on the skin, has no harmful effect on clothing, is compatible with perfumes, is readily soluble in soaps and cosmetic formulations, and is non-staining and non-irritating.

Write now for technical bulletins and formulas for G-11.

SINDAR® Corporation
Industrial Aromatics and Chemicals
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Branches: Philadelphia • Boston
Cincinnati • Detroit • Chicago
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C-P Denver Office

A new Denver toilet articles district with headquarters in the "Mile High" Building in Denver was established recently by Colgate-Palmolive Co., Jersey City, N. J.

Charles T. Hobgood has been named manager of the Denver district. He has been transferred from Cincinnati, where he was sales supervisor of the toilet articles department for that area. He has been with Colgate for eight years.

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Soap Suit Resumes

Resumption of legal proceedings in the government's civil suit against the three largest American soap and synthetic detergent producers and the Association of American Soap & Glycerine Producers is scheduled to get under way in Newark, N. J., Nov. 8. Thus far, argument has centered around what records must be produced by the companies and the Soap Association.

Defendants in the civil suit, which resumes before Federal Judge Alfred E. Modarelli, include Colgate-Palmolive Co., Jersey City, N. J.; Lever Brothers Co., New York, and Procter & Gamble Co., Cincinnati, in addition to the Soap Association.

The anti-trust division of the Department of Justice alleges that the defendants have been controlling the manufacture and sales of soaps and synthetic detergents in violation of the anti-trust laws.

A year and a half ago, Federal Judge Philip Forman attempted to get anti-trust division attorneys and lawyers for the defense together to decide on how and what records should be produced. The government, which filed civil suit in 1952, following an 18-month Grand Jury investigation beginning in 1951 which failed to come up with an indictment, originally wanted records that would fill 100 freight cars. It now appears that the government attorneys' demands have been whittled down from 100 carloads to one million records, covering the period from 1924 to 1952. Judge Modarelli, who was assigned the case a year ago, is trying to shrink the volume of required records still further and gave counsel a list of suggestions to study for possible stipulations of agreement. They are to report at the Nov. 8 hearing.

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Haven Detrex Vice-Pres.

T. Kenneth Haven, formerly executive vice-president of Reichhold Chemicals, Inc., White Plains, N. Y., was recently appointed vice-president of Detrex Corp., Detroit manufacturer of cleaning chemicals.

Coming Meetings

American Society for Testing Materials, committee D-21 on Wax Polishes and Related Materials, Shoreham Hotel, Washington, D. C., December 9-10.

Association of American Soap and Glycerine Producers, 28th annual convention, Waldorf-Astoria Hotel, New York, January 26, 27, and 28.

Chemical Market Research Association, Book-Cadillac Hotel, Detroit, Mich., Nov. 17; joint meeting with Commercial Chemical Development Association, Edgewater Beach Hotel, Chicago, January 20-21; annual meeting, Plaza Hotel, New York, May 18-19.

Chemical Specialties Manufacturers Association, 41st annual meeting, Hotel New Yorker, New York, December 6-8; mid-year meeting, Drake Hotel, Chicago, May 16-18, 1955.

Drug, Chemical and Allied Trades section of the New York Board of Trade, annual dinner, Waldorf Astoria Hotel, New York, March 3.

Manufacturing Chemists Association, semi-annual meeting and winter conference, Hotel Statler, New York, November 23.

National Sanitary Supply Association, annual convention and trade show, Convention Hall, Atlantic City, March 20-23, 1955.

Plant Maintenance and Engineering Show, International Amphitheater, Chicago, Jan. 24-27.

Society of Cosmetic Chemists, annual meeting, Biltmore Hotel, New York, December 9.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, November 10; annual dinner, December 1, both at Commodore Hotel, New York.

Toilet Goods Association, scientific section, December 8; annual meeting, May 10-12, 1955, both at the Waldorf-Astoria Hotel, New York.

Richard R. Webb Dies

Richard Righton Webb, 60, president of W. J. Bush & Co., Inc., New York, essential oil house, died of a heart attack October 8. Mr. Webb, a grandson of the founder, joined W. J. Bush & Co., Ltd., in 1921, after having served as a captain in the British Army in World War I. He was transferred to W. J. Bush and Co. in 1923 and was elected secretary of the company in 1929 and served in this capacity until 1940. He was also a director and treasurer from 1929 until the time of his death. He was elected a director of W. J. Bush & Co., Ltd. and W. J. Bush and Co. (Canada) Ltd. in 1942. Mr. Webb was elected president of W. J. Bush and Co., Inc., on Sept. 13, 1954, only two weeks before his death, to succeed Dr. P. C. C. Isherwood, who died in March of this year.

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McGraw to Onyx

Appointment of Ralph O. McGraw, Jr., as a member of the Chicago sales staff was announced recently by Onyx Oil & Chemical Co., Jersey City, N. J. He will work out of the firm's Chicago office. Mr. McGraw is a graduate of the University of Illinois and has served for two years as an intelligence officer in the U. S. Air Force. His previous associations in the industry include Kraft Chemical Co., Chicago, and Great Lakes Carbon Co., Morton Grove, Ill.

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Viscosity Control Unit

Bendix Aviation Corp., Cincinnati, recently introduced the "Ultra-Viscoson" electronic viscometer to control automatic addition of solvent to dip solutions to maintain optimum viscosity. The hermetically sealed explosion proof viscosity sensing probe is connected to an electronic computer which tranlates the damping effect of liquids on the vibrating reed of the probe into viscosity information. Economy in the use of solvents and uniform product coating quality are claimed to result from the use of the instrument.

Dependable Source for Chemical Raw Materials

Elmer Luckow (right), chief soap chemist for the Allen B. Wrisley Co., discusses benefits of Pluronics F68 with William Lieb

"Our 12-year search ended when we learned about Pluronic F68"

— William Lieb, chief cosmetic chemist, Allen B. Wrisley Co., Chicago

"For 12 years we searched for a nonionic, low-foaming, nonirritating surface active agent in solid form," says Chief Cosmetic Chemist William Lieb, Allen B. Wrisley Company, Chicago, makers of fine soaps and toiletries since 1862.

"We tested literally hundreds of products. None of them filled the bill. Then the Wyandotte representative suggested Pluronic F68. We found it fitted our needs exactly. There is no way of measuring in dollars the value of a development like this.

"We use other Wyandotte products, too. As a matter of fact, we have been buyers of Wyandotte Soda Ash and Caustic since World War I. Deliveries have always been prompt; quality excellent. Wyandotte is big enough to handle our largest orders and give us expert technical assistance, yet small enough to provide personalized service and attention. We are well satisfied."

How about your business? Can you benefit by using some of Wyandotte's many products? Can you profit through Wyandotte's far-reaching developmental program and cooperative technical service? Contact our nearest district office, or write Wyandotte . . . we're glad to be of service. Samples of Pluronic* F68 are available upon request. *Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in principal cities.*

*REG. U.S. PAT. OFF.

Wyandotte
CHEMICALS

HEADQUARTERS FOR ALKALIES

Soda Ash • Caustic Soda • Bicarbonate of Soda • Chlorine
Calcium Carbonate • Calcium Chloride • Glycols • Synthetic Detergents • Agricultural Insecticides • Soil Conditioners
Other Organic and Inorganic Chemicals

Details on Colgate Move to New York City

COLGATE-PALMOLIVE Co., Jersey City, N. J., will move its offices to the 25-story Colgate-Palmolive Building on Park Ave. between 49th and 50th Streets, New York City, in July 1955. Details about the move from its present headquarters in Jersey City, N. J., were contained in a booklet bearing the title, "About Our New Offices," which was distributed to employees and dated Oct. 7, 1954.

Reasons for the move to the glass and aluminum exterior building, directly across Park Ave. from the Waldorf-Astoria Hotel, were outlined in the booklet. The need for more space, as a result of the expansion of the company's business, offices of which are now located in four separate buildings, was cited. The booklet also revealed that Colgate-Palmolive Co. engaged a leading consulting company to conduct a survey, begun several years ago, of possible new quarters for the company. The survey showed that it is in the best interests of the firm to be located in the Grand Central area of New York City.

Initially the company will occupy the fifth through the 12th floors of the building, which will provide about 250,000 square feet of floor space. Provision has been made to acquire additional space on the third, fourth, 13th and 14th floors, as needed.

The building will have a year-round air conditioning system; fluorescent lighting; noise-absorbing ceilings and the latest type of elevators.

A company cafeteria featuring reasonably priced meals is planned for office personnel. Recreation rooms and lounge area will adjoin the cafeteria. There will also be a first aid room, conference and projection rooms and a Colgate-Palmolive information booth in the lobby.

Departments scheduled to move to New York include:

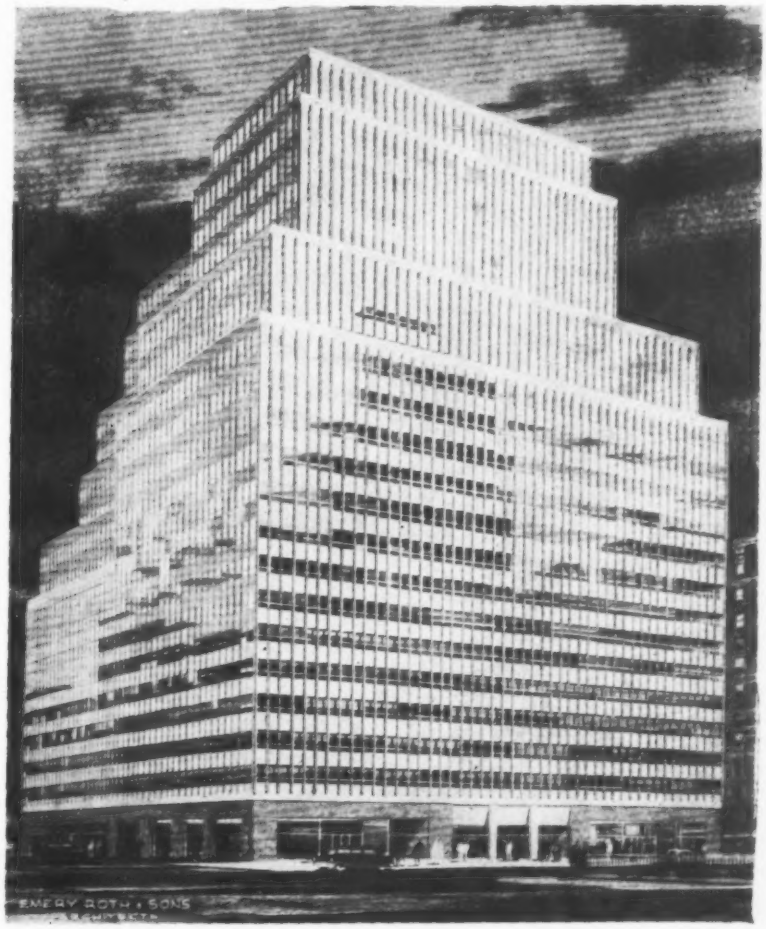
Advertising, branch accounting, budget, central engineering, cost accounting, credit, domestic manufacturing, executive, general accounting, general office management, glycerine sales, industrial engineering, industrial relations, industrial sales, insurance, international, Kay Daumit, legal, market research, new products, organic chemicals sales, package engineering, personnel, production control, purchasing, soap sales, toilet article sales, tax, traffic, and treasurer.

The research and development, patent and premium departments are presently scheduled to remain in Jersey City.

Office hours at the new headquarters will be reduced to 35 hours a week, probably from 9:00 a.m. to 4:45 p.m., with a 45 minute lunch period.

The added expense of those present employees who live in New Jersey and who expect to continue with the company when the offices are moved to New York will be partially defrayed by the company. At the time of the move all such employees who earn up to $10,000 a year will be granted an increase of $12.50 per month.

Architect's drawing of new Colgate-Palmolive Co. headquarters building at 300 Park Avenue, New York City.



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Opens L. A. Branch

National Aniline Division, Allied Chemical & Dye Corp., New York, recently announced the opening of a branch office and warehouse in Los Angeles. The new office is located at 4814 Loma Vista Avenue, in Vernon, telephone number is LOgan 8-2257.

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D'Aigremont Back in U. S.

Jacques d' Aigremont, executive vice president of Roure-Dupont, Inc., New York, returned last month from a three months trip to Europe where he visited areas supplying many of his firm's important raw materials.

coming soon! early 1955!

Ethanolamines

FOR INDUSTRY

by NITROGEN DIVISION

...a name to watch in the petrochemical field.

Mono-, Di-, and Tri-ethanolamines—products of high purity and high quality—will soon be available in tank cars, tank trucks and drums. Storage points throughout the country will assure you rapid delivery. Complete production facilities will guarantee continuous supplies. Write for technical literature and quotations on your 1955 requirements.

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ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, New York
Ironton, Ohio—Orange, Tex.—Omaha, Nebraska

Allied Chemical

Hooker Expands Staff

Hooker Electrochemical Co., Niagara Falls, N. Y., recently announced appointment of eight new members to its technical staff. In the research and development department Lawrence E. O'Donnell, chemical engineer, was assigned to the plastics and resin group; Raymond R. Hindersinn, chemist, to the chlorination research group; William J. Strachan, chemist, to the physical section of the analytical group; Edward Leon, chemist, to the chlorination research group; and John J. Wojnar, chemist, to the analytical group. James F. Lemen and Gordon D. Sargent, chemical engineers, have become members of the process study group and Myron C. Hall, another chemical engineer has been assigned to the engineering department.

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D & O Packers Award

Dodge & Olcott, Inc., New York, has established a special achievement award to promote research and contribute toward product improvement and development in the meat packing industry. The award consists of $1,000 and a gold medal. Its establishment was announced by Hatton B. Rogers, director of the D & O dry solubles division, at the American Meat Institute Convention, held in Chicago, recently.

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Cos. Chems. N. Y. Chapter

A New York chapter of the Society of Cosmetic Chemists was organized at a meeting held on September 29 in New York City. Officers were elected and committee chairmen appointed to proceed with the details of organization and to petition the parent organization for a charter. The following appointments were made: Michael A. Stanton, Stanton Sales Co., New York, chairman; William Lambert, *American Perfumer and Essential Oil Review*, New York, vice chairman; Warren Dennis, Shulton, Inc., Clifton, N. J., secretary; Theodore Ostrowski, Germaine Monteil, Inc., New York, treasurer; Louis C. Barail, consultant, New York, publicity; Gabriel Barnett, Warner Hudnut, Inc., New York, program; Paul G. I. Lauffer, George W. Luft Co., Long Island City, N. Y., by-laws; Hazel Bishop, of Hazel Bishop Laboratories, New York, entertainment. The group will hold monthly meetings featuring speakers and programs of technical interest.

—★—

Thompson Joins Rhodia

Warren B. Thompson, formerly with E. I. du Pont de Nemours & Co., Wilmington, Del., recently became associated with Rhodia, Inc., New York, as a sales representative in the Middle Atlantic states, with headquarters in Philadelphia.

W. B. Thompson

He is handling sales of aromatic chemicals to the soap, synthetic detergent, perfumes and toiletries industries, and is also responsible for sales of products of Rhodia's industrial reodorant ("Alamask") division.

A native of Philadelphia, where he also received his education, Mr. Thompson has spent the last 10 years in that territory as du Pont sales representative for aromatic chemicals and industrial reodorants.

—★—

In Muscle Shoals Posts

Diamond Alkali Co., Cleveland, recently announced the names of the men who will occupy the three top positions at its Muscle Shoals, Ala., plant, which was recently acquired from the U. S. government. Appointed by A. H. Ingley, vice-president in charge of manufacturing, were: Steve Puschaver, plant manager; J. R. Horacek, assistant plant manager, and John W. Whittleman, personnel manager.

They assumed their new posts when Diamond took possession of the plant on Oct. 28.

Hermann to Eastern Color

Appointment of Gerson Hermann as chemist in charge of development and research was announced recently by Eastern Color & Chemical Co., Providence, R. I. Mr. Hermann has been associated with Alrose Chemical Co., Division of Geigy Chemical Corp., Providence, for the past nine years. Previously he was with Wm. Filene's & Sons, Boston, and Phoenix Color and Chemical Co., Paterson, N. J.

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Oil Chemists Hear James

The Northeast Section of the American Oil Chemists' Society held its first meeting in Philadelphia at the Broadwood Hotel, November 9. Edward M. James, consultant, Swarthmore, Pa., spoke on "New Aspects of Refining Procedures." He was previously associated with Lever Brothers Co., New York, as a technical advisor and was the 1952-1953 president of the AOCS.

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Du Pont Booklet on Jobs

"The Story of Employment Opportunities" is the title of a 32-page illustrated booklet published last month by E. I. du Pont de Nemours & Co., Wilmington, Del. The booklet points out that "tomorrow's help-wanted advertisement is being written by the research of today. . . . If research were ever stopped, we might see the end of a system which already has brought this nation to a point where 17 million are employed in manufacturing industries, and more than 60 million in the nation's civilian economy."

—★—

Rhodia Rubber Reodorant

Rhodia, Inc., New York, recently announced the re-establishment of "Alamask" BD for the reodorization of neoprene latex, alone and in combination with "Alamask" ND. "Alamask" BD was withdrawn from the market by E. I. du Pont de Nemours & Co., Wilmington, Del., prior to the transfer of du Pont's reodorant business to Rhodia.

FAMOUS LIGHTHOUSES OF AMERICA

MINOT'S LEDGE LIGHT, one of America's most famous wave-swept lighthouses, guards ships against treacherous reefs 6½ miles southwest of the entrance to Boston Harbor. The first tower at Minot's Ledge, an openwork iron pile structure completed in 1850, was toppled into the sea by a great storm in 1851. The second tower, built of interlocking granite blocks and completed in 1860, still stands solidly on the ledge.

A familiar beacon and safe guide to quality in electrochemicals is the name Niagara Alkali Company, long recognized as a leader in this field of chemical production. Depend on Niagara for quality and good service in Nialk® Liquid Chlorine, Nialk Caustic Potash, Nialk Carbonate of Potash, Nialk Paradichlorobenzene, Nialk Caustic Soda, Nialk TRICHLORethylene, Niagathal® (Tetrachloro Phthalic Anhydride).

NIAGARA ALKALI COMPANY

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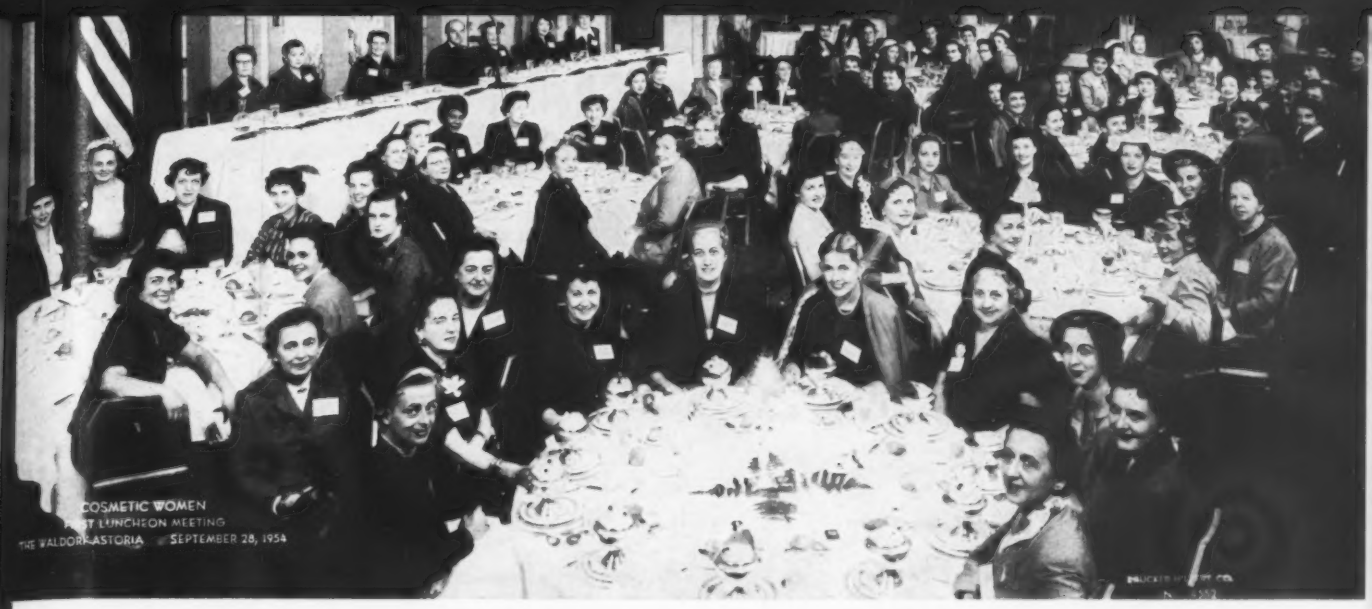

First luncheon-meeting of the newly formed Cosmetic Career Women, held at the Waldorf-Astoria Hotel, New York. Nearly one hundred members and guests attended first meeting, which was addressed by S. L. Mayham, executive vice-president of the Toilet Goods Assn. He was introduced by Miss Kay Colton of Morningstar-Nicol, Inc., New York, a member of the executive committee. Kay Fitzpatrick of TGA and also an executive committee member spoke on the aims of the organization.

Changes at Diamond

Two organizational changes in the silicate, detergent and calcium division of Diamond Alkali Co., Cleveland, were announced recently by John W. Mantz, general manager of the division.

W. E. Winsor has been appointed administrative assistant, under Mr. Mantz, and D. J. Rex was named chemical engineer at the company's precipitated calcium plant in Painesville, O.

— ★ —

Annual SAACI Meeting

At the annual meeting of the Salesmen's Association of the American Chemical Industry, held October 20 at the Roosevelt Hotel, New York, the following have been elected as members of the nominating committee to propose a slate of officers for 1955, it was announced by Warren F. Schumacher, J. T. Baker Chemical Co., SAACI president:

Edward A. Bush of Rhodia, Inc., committee chairman; George L. Conboy, Merck & Co.; James McInnes, Jr., Commercial Solvents Corp.; George W. Poland, Jr., E. M. Sergeant Pulp & Chemical Co.; Charles Alexander, L. Sonneborn Sons, Inc.; William Huisking, Chas. L. Huisking & Co.; Jerome McGinty, Millmaster Chemical Corp.

The chairman of the SAACI Golf Committee, Donald Calo of Niagara Alkali Co., announced that the winners of the 1954 golf trophies were: Class A — S. P. Eysmann, Cellofilm Corp.; Class B — James R. Harris, Jr., Westvaco Chemical Division, Food Machinery & Chemical Corp.; Class C — David H. Jackson, Croll-Reynolds Co.

The SAACI choir, under the direction of Ed McGinley, provided the entertainment at the annual dinner with a number of choral and solo selections.

— ★ —

Webb Bush Treasurer

Richard D. Webb has been appointed treasurer of W. J. Bush & Co., New York. He succeeds his father, the late Richard Righton Webb with whom he had been closely associated in the conduct of the business during the past five years. Mr. Webb, who is a graduate of Duke University, is a great-grandson of the founder of W. J. Bush & Co., established in London, England, in 1851.

— ★ —

New NSSA Constitution

A revision of the constitution and by-laws of the National Sanitary Supply Association was approved by the group's board of directors on September 10. A copy of the revised rules has been mailed to all members who are asked to vote on their acceptance.

York Joins Shore Metal

Appointment of Irving York as district sales manager for Southern California was announced recently by Philip Shore, president of Shore Metal Products Co., Los Angeles. Mr. York will work closely with jobbers in his territory and will also represent Shore Metal's affiliated companies: Shoreline Metals, Admiral Metals, and Philip Shore & Associates, all of which are distributors of sanitary and maintenance equipment and supplies.

— ★ —

Dr. C. I. Post Dies

Dr. Charles I. Post, 56, vice-president of Nopco Chemical Co., Harrison, N. J., died Oct. 10 at his home in Short Hills, N. J. A graduate of Rutgers University, he received his doctorate degree in chemistry from Columbia in 1925 and joined Nopco in the same year. He was a member of the Chemists' Club of New York.

Editor Sees It

(*From Page 36*)

matter was incidental, but nevertheless important, and oftimes a real headache.

Behind this apparently simple problem is an obvious warning to the makers of materials which are offensive to use. The purchasing agent may buy them, but do the workmen use them? Maybe they're missing more of their potential market than they know about.

Since the Days of the "Gold Rush..."

CHECK YOUR NEEDS FROM THIS LIST

VEGETABLE OILS

Babassu, Castor, Cocoanut, Corn, Cottonseed, Olive, Palm, Peanut, Sesame, Soybean

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Sperm Oil, Oleo Stearine, Lard Oil, Neatsfoot Oil, Grease, Tallow, Lanolin

FATTY ACIDS

Red Oil, Tall Oil, Tallow, Stearic Acid, Hydrogenated Fatty Acid, Cottonseed and Soybean Fatty Acids

ALKALIES

Caustic Soda, Solid, Liquid, and Flake; Soda Ash, Light and Dense Carbonate of Potash, calcined and hydrated, Calcium Chloride, Tri Sodium Phosphate, Tetra Pyro Phosphate, Quadrafos Granular and Beads—a stable polyphosphate for water conditioning and mild but effective detergency.

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SILICATE OF SODA—Liquid powdered and solid.

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92%
ACTIVE
detergent and
foaming agent

Performing with an economy that makes it attractive for an unusually large number of diverse uses, **MAPROFIX POWDER LK** is one of the most potent synthetic detergents and foaming agents available on the market, and also offers further advantages as an effective wetting, penetrating and dispersing agent in various applications.

A highly concentrated anionic surface active agent, the 92% activity of **MAPROFIX POWDER LK** recommends it especially as a carpet cleaning, general household and industrial detergent, as well as a foaming agent for dentrifrices, shampoos and cosmetic products. Its foaming qualities are unusually good, producing exceptionally large volume with extraordinary persistency.

As a dispersing agent, **MAPROFIX POWDER LK** has proven itself excellent in paints, pigments, insecticides, fungicides and cosmetics. As a wetting and penetrating agent, **MAPROFIX POWDER LK** is highly effective over the entire pH scale, is most resistant to all types of water hardness; and as an emulsifier acts readily and permanently on many types of oils.

MAPROFIX POWDER LK is no more toxic than ordinary soap, is completely stable and readily soluble in warm water.

For concentration, effectiveness and economy, **MAPROFIX POWDER LK** is the perfect solution for innumerable manufacturing problems. A working sample, sent with complete technical data at no obligation, will prove its advantages—*ask for it today.*

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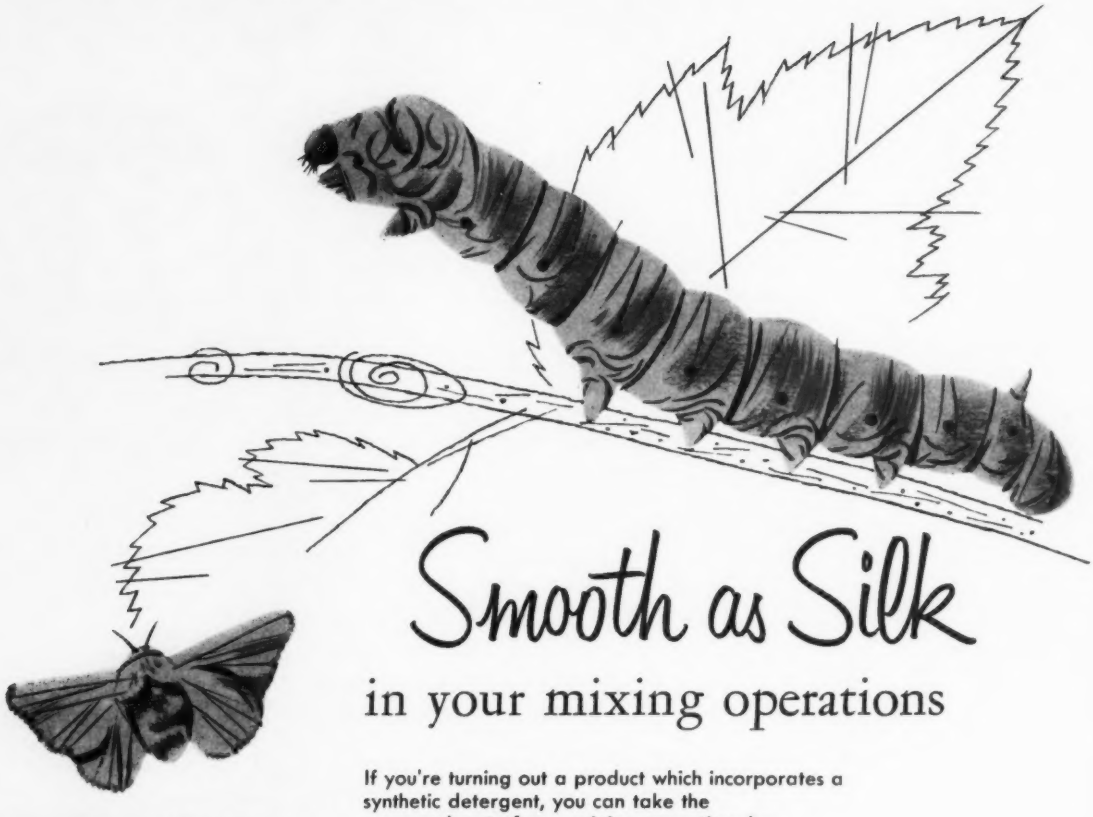

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NEO-FAT® 18-55 STABILITY GIVES YOUR PRODUCTS EXTRA LIFE!

They'll look fresher!

Neo-Fat 18-55 in your finished product means long product life with *no color change!* Unlike ordinary stearic acids, Neo-Fat 18-55 will not turn yellow—even under extended time in storage, high temperature processing and long product life! It was produced by Armour's patented low temperature solvent crystallization process which guarantees a material with color stability *built in!* Chemical ester and concentrated acid tests, as well as severe field tests, have proved that Neo-Fat 18-55 keeps products from changing color—keeps them looking fresher!

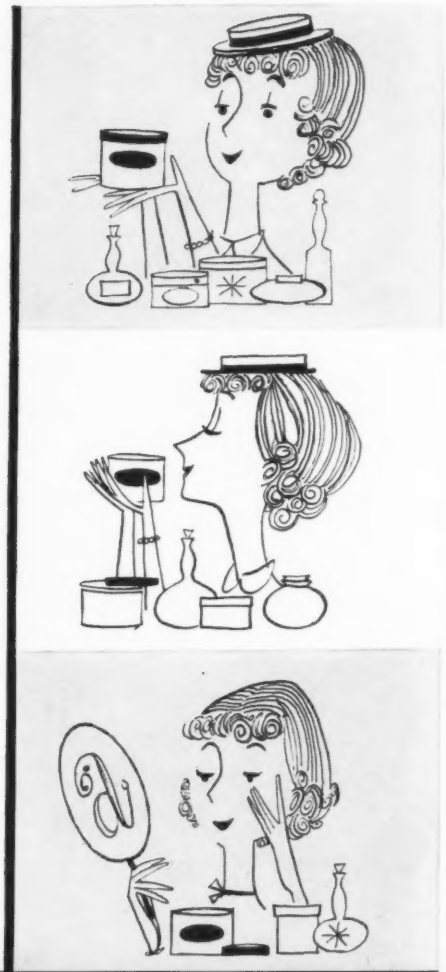
They'll smell fresher!

Neo-Fat 18-55 will resist odor-causing rancidity longer than the stearic acid you are now using! The best proof of that is the Tennessee Eastman test—acids are heated for 2 hours at 200° C. and the lightest final color indicates the greatest resistance to rancidity. Of seven competitive acids tested, Neo-Fat 18-55 was found to have by far the lightest color—Lovibond 5¼", 1.1R—5Y!

They'll stay fresher!

Neo-Fat 18-55 resists oxidation and breakdown longer than ordinary stearic acids! Its peroxide index—measuring the amount of oxygen that has combined or reacted with the fatty acid—is only 0.1!

Send today for samples of Neo-Fat 18-55—the finest triple pressed stearic acid you can buy. Send for samples of Armour's economical double and single pressed stearics, too. Test them all against the raw materials you're now using. You'll choose Armour Neo-Fats to make your products look fresher, smell fresher, stay fresher!



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Bids and AWARDS

F.S.S. Soap Awards

Four companies received the following awards on soap in a recent opening for miscellaneous supplies by the Federal Supply Service, Dallas: Champion Chemical Works, New York, item 1, 9,600 containers, 7 cents, item 2 19,200 containers, 6.5 cents, item 4, 1,824 containers, 11 cents; Gillam Soap & Chemical Co., Fort Worth, Texas, item 3, 12,000 pounds, 8.9 cents; Columbia Oil Co., St. Louis, item 7,600 containers, 73 cents; Procter & Gamble Distributing Co., Cincinnati, item 8, 720 cartons, $4.895 a case. No awards indicated for items 5 and 6.

—★—

Scouring Powder Bids

In a recent opening for soap and scouring powder by the Federal Supply Service, Kansas City, Mo., the following low bids were submitted: Marjo Products Co., Kansas City, Mo., item 1, 9.7 cents; Day & Frick, Philadelphia, item 2, 7.53 cents; Diamond Chemical Co., Maspeth, N. Y., item 3, 16 cents; Lever Brothers Co., New York, item 4, 10.06 cents; Trio Chemical Works, Brooklyn, N. Y., item 5, 20 cents.

—★—

Toilet Soap Award

In a recent opening for liquid toilet soap by the Federal Supply Service, Washington, D. C., the award went to National Chemical Laboratories, Philadelphia, with a low bid of 28.5 cents.

—★—

FSS Soap Awards

In a recent opening for miscellaneous supplies by the Federal Supply Service, Boston, the following awards were received on soap. Sunlight Chemical Corp., Phillipsdale, R. I., item 1, 10 cents; City Chemical Corp., Boston, item 2, 35 cents; Imperial Products Co., Philadelphia, item 4, $9; item 8, $1.10; Clarkson Laboratories, Inc., Philadelphia, item 5, 8.76 cents; Bostwick Laboratories, Inc., Bridgeport, Conn., item 6, 53.3 cents; Larkin Soap Co., Buffalo, N. Y., item 7, 21 cents; Lever Brothers Co., New York, item 9, 8.5 cents; Swift & Co., Chicago, item 10, 8.93 cents. No award indicated for item 3.

—★—

Thompson Insecticide Bid

Thompson Chemicals Corp., St. Louis, submitted the low bid of 52 cents on insecticides in a recent opening for miscellaneous supplies by the Federal Supply Service, Kansas City, Mo.

—★—

Low Hand Cleaner Bids

Quickee Products, Yonkers, N. Y., submitted the following low bids on hand cleaners in a recent opening for miscellaneous supplies by the Federal Supply Service, N. Y. Items 1-7, 13.5 cents each, items 8-14, 19.4 cents each.

—★—

Low DDT Bids

In a recent opening for miscellaneous supplies by the Navy Purchasing Office, New York, low bids on DDT were submitted by the following companies: Stauffer Chemical Co., New York, item 1a, 31.73 cents, item 1c, 33.11 cents, item 1d, 33.9 cents; John Powell Co., New York, item 1b, 33.5 cents, item 1e, 35 cents; Octagon Process, Inc., Staten Island, N. Y., item 1f, 38 cents, item 1g, 34.6 cents.

—★—

Wax Award to Trio

Trio Chemical Works, Birmingham, Ala., won the award on floor wax with a low bid of 50.7 cents, item 1, in a recent opening for miscellaneous supplies by the Quartermaster, Fort Benning, Ga.

—★—

Iowa, Kamen Soap Bids

Iowa Soap Co., Burlington, Ia., and Kamen Soap Products Co., Barberton, O., were the low bidders on soap in a recent opening for miscellaneous supplies by the Federal Supply Service, Kansas City, Mo. Iowa bid 7.77 cents on item 1, and Kamen bid 57 cents, item 2; 5 cents, item 3.

—★—

Dishwashing Comp. Award

In a recent opening for dishwashing compound by the Federal Supply Service, Washington, D. C., the award went to Washington Chemical Sales, Inc., Washington, D. C. with the low bid of 7.19 cents on item one, and 6.89 cents on item two.

—★—

Soap Award to Packwood

In a recent opening for soap by the Federal Supply Service, Dallas, G. H. Packwood Mfg. Co., St. Louis, won the award with the following low bids: item 1, 2,500 cartons, 40 cents; item 2, 5,000 cartons, 55 cents.

—★—

Clarkson Detergent Award

Clarkson Laboratories, Philadelphia, won the award on mobile laundry detergent with a low bid of 10.39 cents, pound, on item b, in a recent opening for miscellaneous supplies by the Quartermaster, Philadelphia.

—★—

Low Soap Bids

Colgate-Palmolive Co., Jersey City, N. J., and Cole Laboratories, Long Island City, N. Y., submitted the low bids on soap in a recent opening for miscellaneous supplies by the Federal Supply Service, New York. Colgate bid 13.067 cents on item one, and Cole bid $14.95 on item two.

—★—

Low Insect Repellent Bid

Montrose Chemical Co., Newark, N. J., submitted the low bid of $3.64 on insect repellent in a recent opening for miscellaneous supplies by the Navy Purchasing Office, New York.

—★—

Low Soap Chip Bid

Stahl Soap Co., Brooklyn, submitted the low bid of 8.18 cents on soap chips in a recent opening for miscellaneous supplies by the Federal Supply Service, New York.

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A valuable aromatic for users of Lavender oil
Stable
Lasting
Effective
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NEW Trade Marks

THE following trade marks were published in recent issues of the *Official Gazette* of the U. S. Patent Office in compliance with section 12(a) of the Trade Mark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the *Gazette*. See rules 20.1 to 20.5. As provided by section 31 of the Act, a fee of $25 must accompany notice of opposition.

LEATHER foam — This for chemical preparation for cleaning, polishing, and preserving leather. Filed Jan. 15, 1954 by Graton & Knight Co., Worcester, Mass. Claims use since Dec. 22, 1953.

PALL MALL—This for polishes for metal, wood and enamel, paste waxes. Filed Feb. 8, 1953 by Pall Mall Mfg. Co., Long Island City, N. Y. Claims use since March 9, 1934.

NL—This for self-polishing floor wax. Filed Feb. 11, 1954 by National Laboratories, Inc., Toledo, O. Claims use since Oct. 7, 1952.

MOL-NO-MOR—This for rodenticide. Filed Aug. 3, 1953 by John K. Spyre, Royal Oak, Mich. Claims use since March 1950.

Mattress-Fresh—This for germicidal and deodorant spray for removing odor from matresses and pillows. Filed Jan. 21, 1954 by Cardinal Products., Hollywood, Fla. Claims use since Jan. 29, 1953.

BANICIDE—This for insecticide. Filed Feb. 24, 1954 by Lester Laboratories, Ltd., East Point, Ga. Claims use since July 2, 1948.

Lester Laboratories, Ltd.—This for disinfectants, industrial deodorants, insecticides, rust inhibitors, and animal and vegetable waxes. Filed Feb. 24, 1954 by Lester Laboratories, Ltd., East Point, Ga. Claims use since May 31, 1946.

Lathurn, Powdern — These for soap dispensers. Filed March 5, 1954 by American Dispenser Co., New York. Claims use since Aug. 1, 1934 and January 1947, respectively.

ANNIE OAKLEY—This for tooth powder. Filed Nov. 16, 1953 by Annie Oakley Enterprises, Inc., Los Angeles. Claims use since Oct. 7, 1953.

Silver Shine—This for liquid tarnish remover. Filed April 6, 1953 by Silver Shine, Inc., St. Paul, Minn. Claims use since on or about Aug. 1, 1951.

DIP-IT—This for stain remover for food utensils. Filed May 7, 1952 by Economics Laboratory, Inc., St. Paul, Minn. Caims use since April 15, 1952.

KARBON KING—This for engine sludge solvents. Filed Feb. 24, 1954 by Lester Laboratories, Ltd., East Point, Ga. Claims use since Nov. 4, 1953.

WAXIES—This for wax-treated webbing in tubular form to be slipped over hand for cleaning and polishing shoes and furniture. Filed Aug. 4, 1953 by Packaging Guild, Cleveland. Claims use since March 27, 1953.

Classic—This for automobile polish materials. Filed Oct. 1, 1953 by Classic Car Product, Ltd., West Palm Beach, Fla. Claims use since Feb. 19, 1952.

SATALITE—This for colored wax automobile polishes in liquid and paste form. Filed Feb. 8, 1954 by George F. Gerhardt, Richmond, Va. Claims use since Dec. 1, 1953.

Thrill—This for furniture wax. Filed April 9, 1954 by Beacon Co., Cambridge, Mass. Claims use since March 22, 1954.

GERMICID WAX — This for floor polishing wax. Filed April 16, 1954 by Trio Chemical Works, Inc., Brooklyn, N. Y. Claims use since Jan. 15, 1953.

OFF-F—This for scouring pads. Filed May 12, 1954 by Gabriel Williams Co., Brooklyn, N. Y. Claims use since Dec. 2. 1953.

OUTDOOR FRIEND—This for liquid insect repellent. Filed April 14, 1954 by Allied Home Products Corp., Beloit, Wis. Claims use since March 22, 1954.

WESTICIDE—This for liquid insecticide. Filed April 16, 1954 by West Disinfecting Co., Long Island City, N. Y. Claims use since April 1, 1954.

TWIGGER—This for dentifrice. Filed April 22, 1954 by Dean Gale Collins, doing business as Twigger Co., Midland, Tex. Claims use since March 22, 1954.

SAN-I-SUDS—This for germicidal detergent for use on floors, floor covering and upholstery. Filed April 2, 1954 by James Varley & Sons, Inc., St. Louis. Claims use since July 1, 1950.

LO-TOX — This for liquid cleaner. Filed Dec. 8, 1952 by River Valley Chemicals, Inc., Aurora, Ill. Claims use since June 14, 1950.

Woolite—This for soap product for washing woolens. Filed Dec. 12, 1952 by Henry Harbor Co., North Hollywood, Calif. Claims use since May 8, 1952.

RUG-SHEEN—This for rug cleaning preparation. Filed May 26, 1953 by Rug Sheen, Inc., Lubbock, Tex. Claims use since Sept. 15, 1952.

BRAYCO—This for cleaning fluids. Filed Sept. 21, 1953 by Bray Oil Co., Los Angeles. Claims use since Sept. 17, 1946.

T E O X—This for water-soluble liquid non-ionic detergent and water-soluble solid detergent compositions containing the same. Filed Oct. 14, 1953 by Blockson Chemical Co., Joliet, Ill. Claims use since Feb. 13, 1953.

Optic-Kleer—This for wax preparation for cleaning optical and camera lenses. Filed Dec. 7, 1953 by Chemical Electronic Engineering, Inc., Matawan, N. J. Claims use since Oct. 23, 1952.

BON-GLOS—This for detergent tablets and briquets for use in dishwashing machines. Filed April 14, 1954 by William C. Bonner, doing business as W. C. Bonner Co., Watertown, Mass. Claims use since August 1952.

Zag—This for toilet bowl sanitizer. Filed April 23, 1954 by Hysan Products Co., Chicago. Claims use since April 14, 1954.

Moonbeam—This for shampoo. Filed April 26, 1954 by Procter & Gamble Co., Cincinnati. Claims use since March 9, 1954.

BONNIE BRITE—This for floor wax. Filed May 7, 1954 by Bonnie Brite Products Corp., New York. Claims use since April 19, 1954.

SHINE RITE—This for metal polish in paste form. Filed May 10, 1954 by Earl W. Knapp, doing business as Crown Chemical Laboratories, Cleveland. Claims use since April 19, 1954.

SUN SCREEN—This for automobile waxes and polishes. Filed May 10, 1954 by Saul Moses, doing business as Dentocide Chemical Co., Baltimore. Claims use since Jan. 26, 1953.

METHO-NOX—This for insecticide. Filed June 16, 1953 by Columbia Chemical Co., Chicago. Claims use since Sept. 24, 1952.

MERIT—This for toilet bowl deodorants. Filed June 25, 1953 by The Puro Co., St. Louis, Mo. Claims use since April 1, 1953.

GOPHER-GASSER—This for pest exterminating gas cartridge. Filed July 2, 1953 by James G. Jeffreys, doing business as Jeff Products Co., Burbank, Calif. Claims use since during the year 1944.

ANTIFORMIN—This for disinfecting, sterilizing and deodorizing preparations. Filed Aug. 5, 1953 by American Antiformin Co., Brooklyn. Claims use since February, 1900.

vita tone—This for aluminum sulfate and dusting sulphur used as insecticides and miticides. Filed Sept. 8, 1953 by Leffingwell Chemical Co., East Whittier, Calif. Claims use since June 30, 1952.

FlyMinus—This for insecticides. Filed April 12, 1954 by Anderson Chemical Co., Litchfield, Minn. Claims use since Feb. 24, 1954.

Moonglow—This for shampoo. Filed May 6, 1954 by Procter & Gamble Co., Cincinnati. Claims use since May 15, 1928.

DISHMAGIC—This for detergent preparation. Filed April 20, 1954 by Fred Dunn, doing business as Dishmagic, Los Angeles. Claims use since June 8, 1953.

WASH DAY—This for cleaning, washing and bleaching compound. Filed March 3, 1954 by Sandy Valley Grocery Co., Ashland, Ky. Claims use since June 9, 1948.

Mobilene—This for petroleum flushing oil for use in automobiles. Filed Jan. 25, 1954 by Socony-Vacuum Oil Co., New York. Claims use since July 21, 1953.

STARLIGHT—This for shampoo. Filed Jan. 21, 1954 by Lever Brothers Co., New York. Claims use since Dec. 16, 1953.

TRU - SORB—This for oil, grease and liquid absorbent for floors. Filed Jan. 14, 1954 by Bridgeport Sawdust & Shavings Co., Bridgeport, Conn. Claims use since March 1953.

TILEWHITE—This for paste cleaner for tile and porcelain. Filed July 2, 1953 by Gerson Stewart Corp., Cleveland. Claims use since January 1929.

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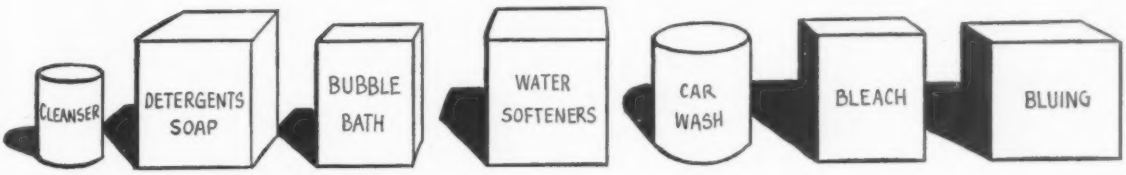

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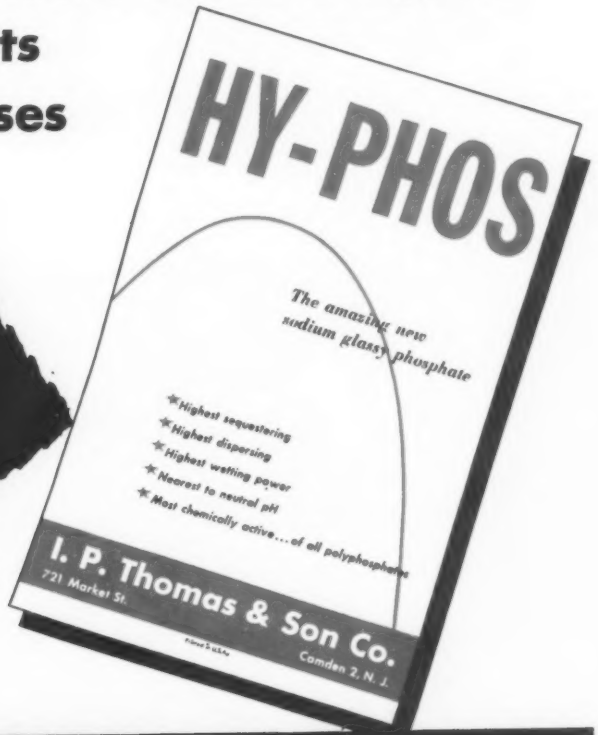

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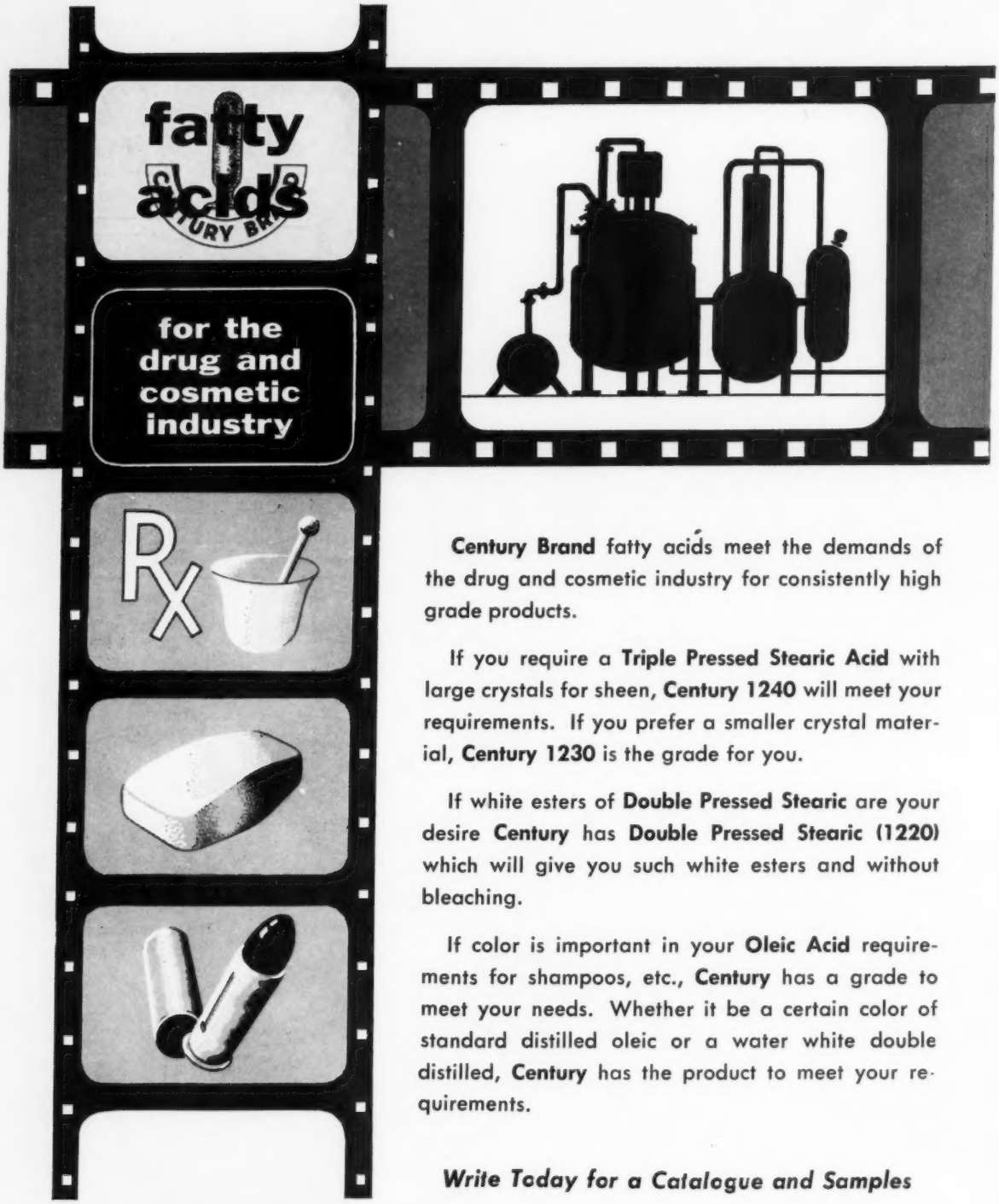

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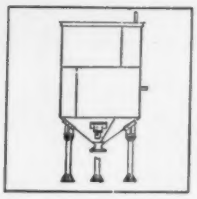

KETTLES

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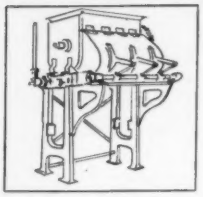

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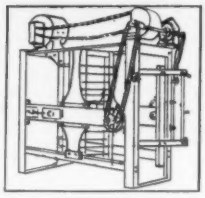

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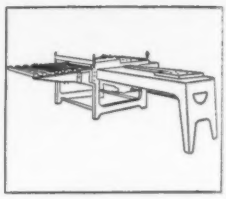
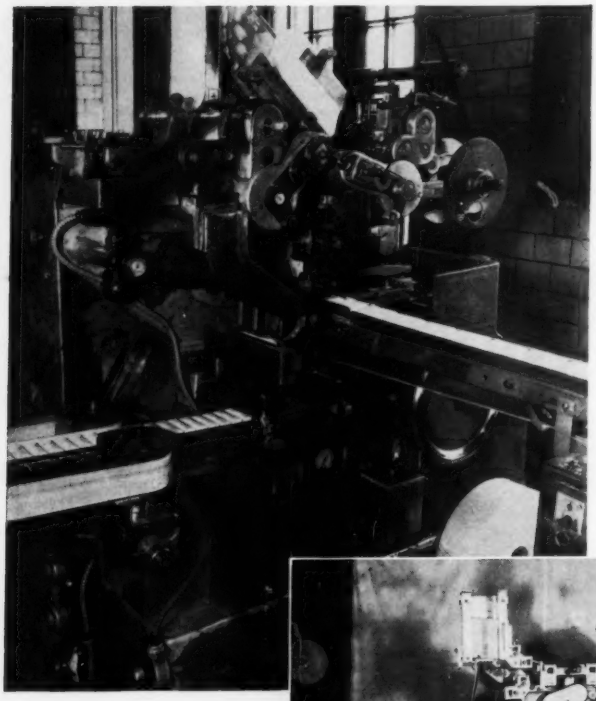


LAUNDRY SOAP CUTTERS



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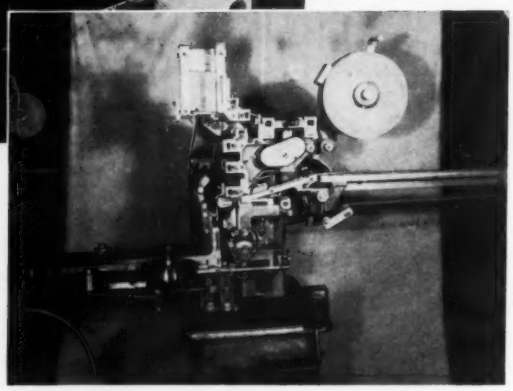
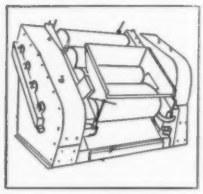


MODEL S wraps toilet and bath sizes up to 200 per minute on cakes suitable for high speed wrapping. Sheet or roll feeds.

MODEL MS wraps up to 300 cakes per minute of hotel sized miniatures. Sheet or roll feeds.



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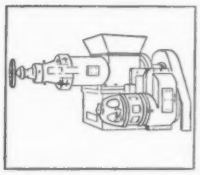
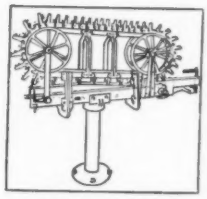
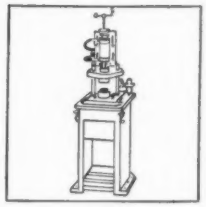


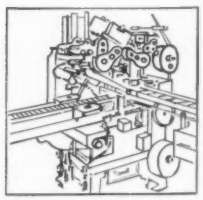
PLODDERS



TOILET SOAP CUTTERS



PRESSES



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pH of Soluble Silicates

By Leslie R. Bacon* and John H. Wills
Philadelphia Quartz Co.

ADEQUATE knowledge in a readily useful form of the pH of solutions of sodium silicate is needed in detergency and many other industries which use soluble silicates. The new precise electrometric data recently published[1] have been correlated and plotted as iso - pH (Fig. 1) and iso - ratio (Fig. 2) curves in order to make the data more easily available to technicians and research workers.

Since colorimetric procedures are easier and, therefore, commonly employed in industry, such measurements were made on the same solutions. The difficulties which may be encountered in determining pH colorimetrically have been discussed by McCrumb[2]. Variable salt concentrations, turbidity, and the presence of colloidal material are the factors which may be important, but others must be watched. In mixtures of soap, endpoints were found a whole pH unit apart depending on the indicator chosen.

Deviations between the electrometric and colorimetric determinations in silicate systems[1] were so serious below 0.01% Na_2O that colorimetric measurement by the usual standard comparator scarcely seems worth while at such concentration ranges. Agreement is better at higher alkali concentrations and at the ratios more siliceous than $Na_2O:2SiO_2$. In the case of the trisilicate, Parazo Orange is a fraction of a pH unit high but, in all other cases, the colorimetric readings were low and become 0.5 or more units off at a pH below 10.5. Thus Acyl Blue, in high pH solutions, gives values reasonably close to the electrometric values. Phthalein Red and Cresol Red, used in the low range, tend to read 0.5 to one unit or more low. The intermediate indicators Parazo Orange, Tolyl Red, Acyl Red vary in reliability according to the ratio of the silicate solution, but are generally within a 0.5 unit of the electrometric pH at 20° C.

Although stable E.M.F. readings and colorimetric readings may be attained at high electrolyte concentrations, dielectric and perhaps other influences begin to exert important effects and the data obtained should be interpreted only as "apparent pH values." In the experimental data, inflections occur in many of the pH concentration curves near 3% Na_2O. The curves turn upward at higher concentrations and tend to exceed maximum theoretical limits. At concentrations below 0.001% Na_2O the solutions tested are so dilute that pH values measured become rather considerably influenced by the quality of the water supply used for dilution and the presence of carbonates or other impurities in the added alkali. The solutions tested were of a very high degree of purity.

The interpretation of pH itself is still unsettled. The term first signified the negative logarithm of the supposed hydrogen ion concentration. With the rise of thermodynamics, pH came to be interpreted as the negative logarithm of the hydrogen ion activity. However, absolute single ion activity values cannot be determined; all experimental values are in effect the mean ionic activities of the hydrogen ion and associated anion and the apparent hydrogen ion activity determined remains, in some degree, a function of the electrolyte involved.

Interpolated Data. 1. *Iso-pH curves: ratio vs. silicate ratio*

Fig. 1 covers the pH range of 9-14.8 for solutions varying in ratio from O (caustic soda) to $Na_2O:3SiO_2$ at 0.0001 to 15% Na_2O. The points represented by full circles are considered certain; those shown by half circles are in good accord, but of somewhat lower dependability. The anhydrous silicate curve showing the highest concentrations theoretically attainable in hydrous systems and the solubility curve for $Na_2SiO_3.9H_2O$ at 20°C.

Recently published data on the pH of sodium silicate and caustic soda solutions have been replotted as families of iso-ratio and iso-pH curves. The application of the data in these curves to a variety of problems is illustrated.

*Present address Wyandotte Chemicals Corporation, Wyandotte, Mich. This work was done by Dr. L. R. Bacon and completed in 1939. The original report has been edited for publication by Dr. John H. Wills of the Philadelphia Quartz Company.

1) Leslie R. Bacon and John H. Wills, *Journal of the Franklin Institute*, 258 (5), page 347-369, (1954).

2) McCrumb, F. R., in "Symposium on pH Measurement," ASTM Tech. Publ. #73, Philadelphia (1946).

Soap perfumes by

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are included to help clarify the distribution of solutions measured. Data for several solutions supersaturated with respect to $Na_2SiO_3.9H_2O$ were actually obtained as indicated. The need for additional information, such as data for higher concentrations at the higher ratios as originally scheduled for study, is evident. Additional data between the di- and trisilicate ratios are needed to clarify the present complexity at all concentrations above 0.001% Na_2O.

2. *Iso-ratio curves: pH vs. % Na_2O*

Na_2O and pH values for regularly spaced silicate ratios have been read off from Fig. 1 to form the iso-ratio lines in Fig. 2. Individual lines in some cases are almost identical with the original experimental curves, but by the double interpolation the most probable values have been fixed by graphical means on the basis of all the data.

Extension of the Use of Figs. 1 & 2

These data may be replotted in other terms of commercial usage: for instance, if in Fig. 2 pH is plotted against percent SiO_2, the curve for sodium hydroxide will not appear; the curve for sodium metasilicate will be shifted only a trifling amount; the curve for orthosilicate will move horizontally to the left without change in shape to a position representing about half the present Na_2O concentrations. Curves more siliceous than the metasilicate, on the other hand, will move horizontally to the right, without change of form, to a degree increasing with the ratio. Thus the curves for the whole figure, instead of approaching convergence at a pH of 9, will have been spread out to cover the larger part of a whole logarithmic concentration cycle at pH 9. The equivalent changes may be expressed in terms of concentrations of individual commercial silicates.

If Fig. 1 is replotted in terms of percent SiO_2, the metasilicate ratio points remain at their present approximate positions, while the orthosilicate points move equal distances to the left and the points for ratios more siliceous than metasilicate move to the right to an extent

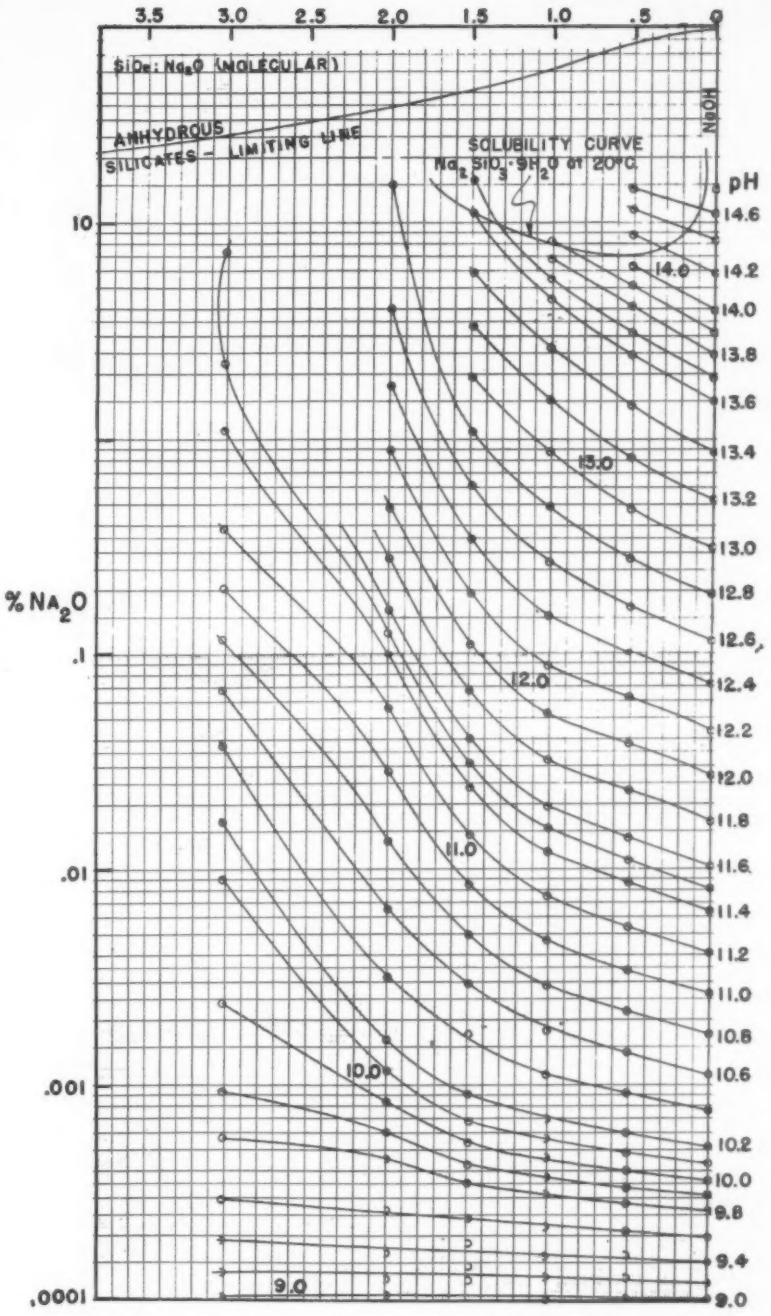

Fig. 1. Iso-pH curves for sodium and caustic soda solutions at 20° C. The numbers on the curves indicate pH.

increasing with ratio. This may eliminate some of the inflections which now appear, but would introduce others, mainly in the metasilicate-orthosilicate range. All iso-pH curves would converge at— ∞ (0% SiO_2) on the caustic soda line.

In the absence of charts replotted as suggested, a practical short cut illustrated by the following examples can be applied for limited service.

Example 1.

What pH will a 1.58% solution of $Na_2SiO_3.5H_2O$ show at 20°C.?

Solution:

Re-express the concentration

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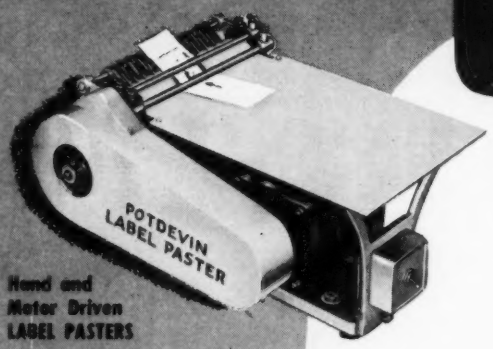
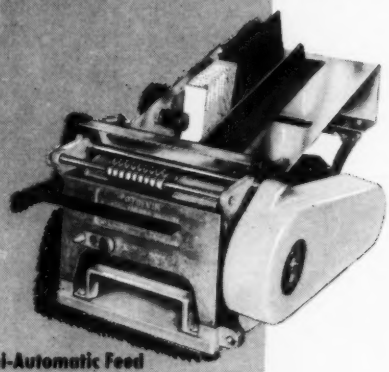


Hand and Motor Driven LABEL PASTERS



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On this page several of the many **POTDEVIN** standard machines are illustrated. These are particularly suited for short-run production or for auxiliary use so as not to disturb a mass production equipment set-up. They are available on a **FREE TRIAL**. Write for literature and details on the complete **POTDEVIN** line.

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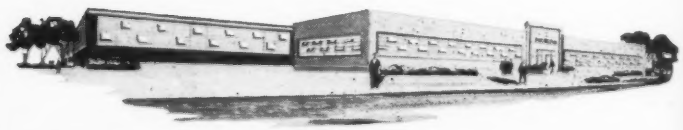

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elements in terms of percent Na_2O. If the points of dividers are placed on Fig. 2 at the normal Na_2O content of commercial metasilicate pentahydrate, 29.15% Na_2O, and at 100% Na_2O, respectively, on any horizontal line, a logarithmic distance equivalent to the conversion factor for sodium metasilicate to Na_2O is measured. Then by setting the right-hand point at 1.58, the left-hand point indicates that the Na_2O content of the solution under consideration is 0.46% Na_2O, corresponding to a pH of 12.78 read from the metasilicate curve.

The same result can be obtained from Fig. 1 by setting on the horizontal metasilicate ratio line one point of the dividers at 1.58 and interpolating for the pH corresponding to 0.46% Na_2O, where the other point falls.

Example 2.

What concentration of $Na_3HSiO_4.5H_2O$ would be required to form a solution of pH 11.5?

Solution:

The Na_2O content of the silicate is about 36.5%. The dividers are, therefore, spaced on Fig. 2 on the concentration axis at 36.5 and 100. Placing now the left point on the sesquisilicate curve at pH 11.5, the Na_2O content required is seen to be 0.0122%. The corresponding percentage of sesquisilicate may be read horizontally across where the other point of the dividers falls at 0.0332. Alternatively, this multiplication may be carried out by dropping down to the bottom of the chart outside the region covered by the curves, or on Fig. 1.

Example 3.

Since the charts have been drawn on the basis of molecular ratios, weight ratio conversions must be made in some cases.

Wt. Ratio SiO_2:Na_2O= 0.969 Mol Ratio SiO_2:Na_2O.

What will be the SiO_2 concentration in a silicate of molecular ratio 1:2.15 whose pH is 10.8?

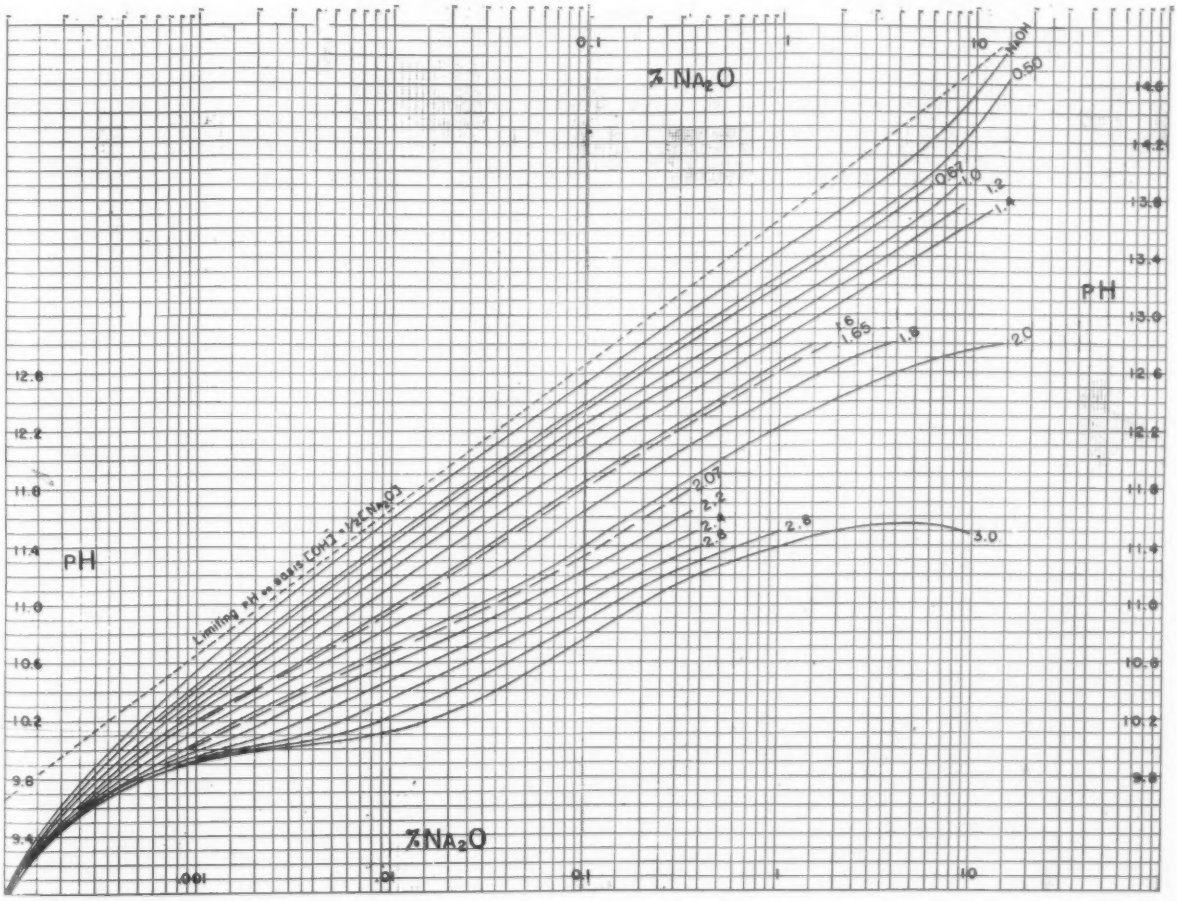
Solution:

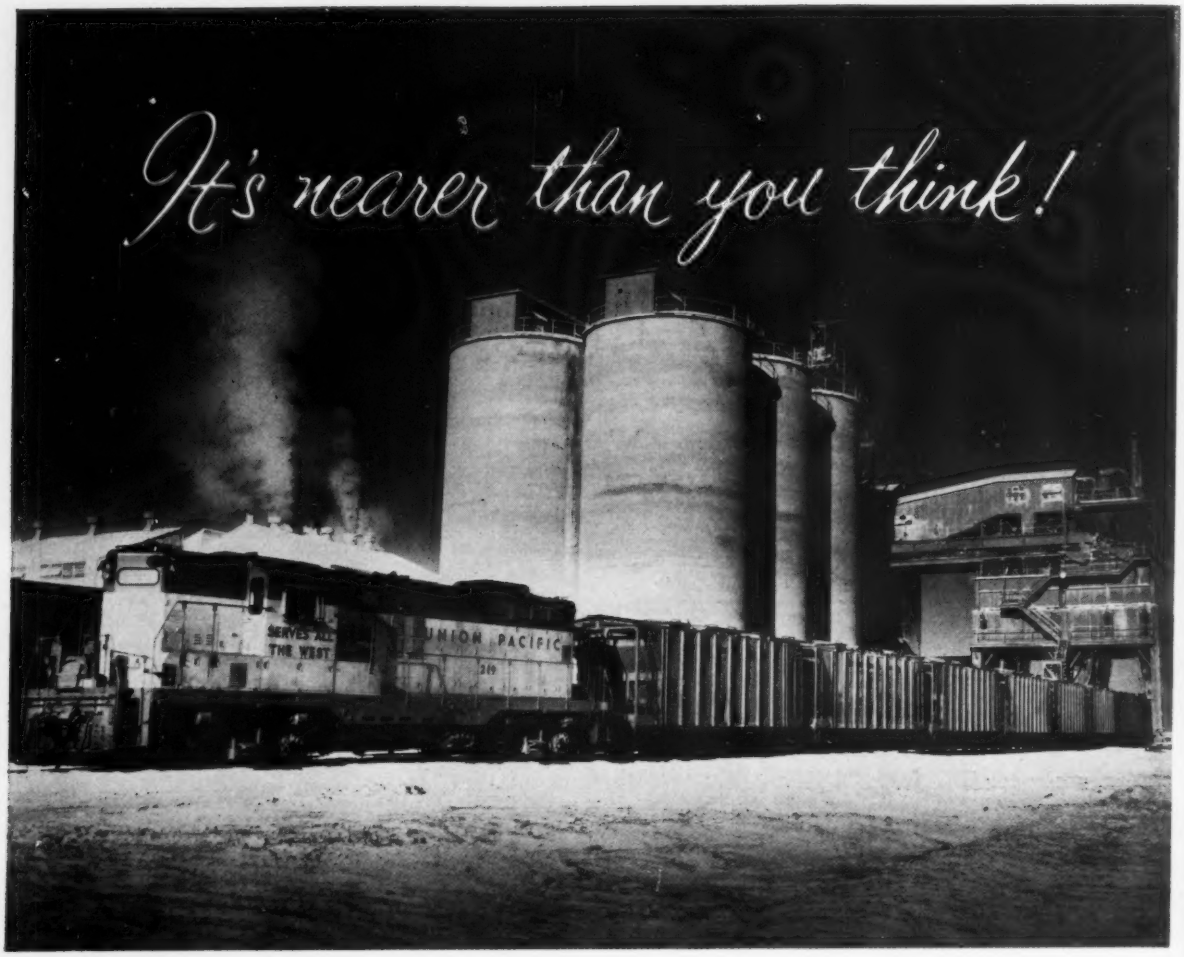
This problem can be handled more readily by the use of Fig. 1 although, in general, Fig. 2 is slightly more dependable.

Since weight concentration of silica is required, the weight ratio of SiO_2:Na_2O is obtained: (0.969 x 2.15=2.08). The dividers are then set to multiply the Na_2O content of the silicate solution by 2.08 by spacing the points at 1 and

(*Turn to Page* 105)

Fig. 2. Iso-ratio lines relating pH and concentration of sodium silicate and caustic soda solutions at 20° C. The smoothed and interpolated data of this chart are based on the NaOH, orthosilicate (0.5), metasilicate (1.0), disilicate (2.0), 3.0, and 1.5 ratio lines of Fig. 1. The number on the curves indicate molecular ratio.





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Books of Interest

Book On Wax Making

Neuzeitliche Wachswaren und ihre Herstellung (Modern Wax Products and Their Manufacture) by Carl Becher Jr. and Anton Loedl, Verlag fuer Chemische Industrie H. Ziolkowsky KG., Augsburg, Germany, 350 pages, six inches by 8¼ inches, cloth, price DM 23.70. The book's first and main part by Becher is devoted to products designed for the care of leather, furniture, floors, and automobiles. The basic raw materials of these products as well as additives and adjuvants are described, including recently developed synthetic materials. Structure and formulation of individual cleaning and polishing compounds is discussed. They are grouped into wax pastes, emulsions (mixed and water) wax mixtures, and waxless cleaners. Numerous individual formulas are supplied in the form of tables which makes the information highly adaptable to special needs and multiplies the usefulness of these recipes to the production man. Plant equipment and organization, methods of production, packaging, and plant construction are covered in individual chapters.

The second major section of the book is devoted to the manufacture of candles. In addition to 67 illustrations the text is supported by 49 tables, a list of patents and authors, and a subject index.

—★—

Insects for the Layman

Insect Fact and Folklore by Lucy W. Clausen, published by The Macmillan Co., New York, 8½ inches by 5½ inches, cloth, price $3.50. The author's aim is to bring together nontechnical information on insects, which would not otherwise be readily available; to provide a comprehensive bibliography giving the sources of this material; and, most important of all, to initiate the layman into the subject of entomology by interlacing scientific data with stories of more popular interest having insects as the common element.

The introductory chapter deals with the classification of insects, their physical characteristics and other general matters. The ensuing chapters are devoted to the better known forms of insects, to those which play important roles in the customs of peoples throughout the world and to insects which, because of their products, have been the basis of various industries, and to some of the insects whose ravages have made them the enemies of mankind.

Science, history and legend are combined in this volume to achieve Miss Clausen's avowed purpose: to overcome the repugnance that most lay persons have towards insects, to make people aware of the fact that the majority of insects are interesting, necessary, and do play an important part in the everyday life of all peoples. Her entertaining and fascinating text is most pleasantly supported by 45 illustrations drawn by Jan B. Fairservis.

—★—

Modern Perfumery

Practice of Modern Perfumery by P. Jellinek, Interscience Publishers, Inc., New York, translated from the German *Praktikum des Modernen Parfuemeurs.* 219 pages, 5½ inches by 9½ inches, cloth, price $4.75. This handbook for the young perfumer includes a 35-page chapter on the perfumery of toilet soaps. To illustrate behavior of aromatics in milled toilet soaps an extensive table lists synthetic aromatics and isolates, essential oils, and resinoids. Each listing supplies information on stability, color, properties as a perfume compound, and a suggested substitute. The advantages of resinoids in soap perfuming are discussed and the three main types of problems facing the creator of soap perfumes are studied in detail. These are: creation of perfumes for soap only, adaptation of perfume composition for use in soap, and the matching of soap perfumes. A list of the most important soap perfume types details base, blending agents, fixatives, and modifying agents. Perfumery of alkaline cold soaps is discussed separately and the chapter is concluded with a brief reference to the importance of presentation of toilet soaps, covering harmony of color with perfume and the influence of packaging marketability.

Perfuming of shaving preparations and shampoos is considered elsewhere in the volume under the heading: perfumery of toilet preparations.

—★—

1954 Pesticide Handbook

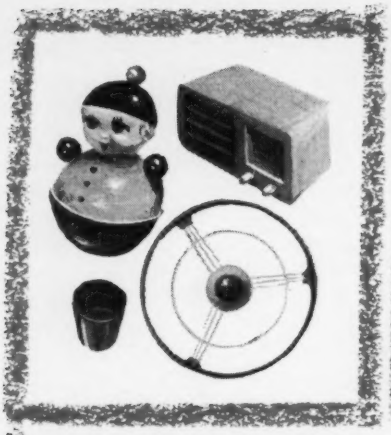
Pesticide Handbook by D. E. H. Frear, sixth edition, College Science Publishers, State College, Pa., 196 pages, price, paper bound, $1.95 and cloth bound, $3.00. Product listings in the 1954 edition of this directory have been increased to 5763, covering insecticides, fungicides, herbicides, rodenticides, soil conditioners, and equipment. As in previous editions, the authors invite suggestions for additional listings.

—★—

Atlantic Research Brochure

A new four-page, illustrated brochure describing the facilities, services and products of Atlantic Research Corp., Alexandria, Va., was announced recently. New facilities for experimental research in chemistry, engineering and applied physics are discussed. Examples of products developed and investigations successfully completed are listed.

Atlantic Research now occupies approximately 50,000 square feet of office and laboratory space in its Alexandria headquarters and at a 580 acre pilot plant installation at nearby Gainesville, Va. The company was organized in 1949. Its present volume of contract research and development work is approximately $1,500,000 annually and its staff totals 150, of whom about 60 are scientists and engineers.



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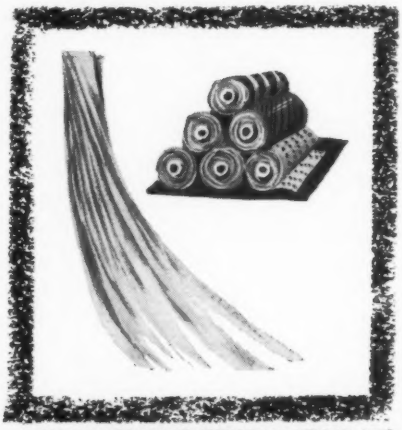

PRODUCTION Clinic

By E. G. Thomssen, Ph.D.

INSIDE thefts are a source of substantial losses to business. Stealing by dishonest employees costs U.S. business more than what is taken by professional thieves, according to some estimates. Losses sustained by business through inside thefts or "leakage" may amount to well over half a billion dollars annually.

The discussion of the subject of stealing by employees is one that is usually shunned. The discovery of theft and the handling of the guilty person is extremely distasteful to the production man. The tendency in all too many of these cases is to be lenient with the offender. In many cases he turns out to be a person who has advanced to a better-than-average position through superior ability, ambition to make good and strict attention to his job during long years of employment. Even his moral background and training may be excellent.

Usually the theft starts by appropriating small items. Once having begun to steal, it becomes easier to repeat the offense. If not detected, the pilfering continues and, eventually, may involve increasingly larger amounts. In most cases the cause of the temptation is some emergency need for money.

During my experience with factory employees I ran into such situations on several occasions. Based upon personal experience and observation, I find it is good policy to be suspicious of employees who remain at their place of work after the end of the working day. Also subject to suspicion are those who decline vacations on the ground that they would rather work than loaf. Examples of how an inside employee carries out his thieving are of interest.

In one instance an employee who had the respect of all made a habit of invariably being the last man to leave the plant at the close of his day's work. He was also observed during working hours in isolated areas of the factory buildings, especially in basements. Considerable amounts of various products could not be accounted for in the department in which he was employed. The foreman even discussed the losses with this particular individual, who was a trusted, senior employee, in whom the foreman had confidence. He was requested to keep an eye on his fellow employees. The losses continued intermittently. One night, a watchman detected somebody he supposed to be a stranger at a basement window. His shout of alarm frightened away the prowler. An investigation revealed missing items neatly cached away in the well of the window. The goods were left there undisturbed, but a careful watch was instituted. About a week later, the stranger appeared again and was caught. He turned out to be the trusted employee. A search warrant was obtained and upon investigation the police found several thousand dollars' worth of his company's products in his home. His robbing had been going on for several years and he was supplying a fence who disposed of the stolen goods at reduced prices.

Dr. Thomssen

Another case involved a mechanic in a maintenance crew. He was building himself a new home. To make additional money he made considerable overtime jobs for himself. This went on for several months, during which time maintenance and building supplies, especially carpentry, electrical, plumbing and steamfitting fixtures disappeared in sizeable quantities. The master mechanic began to suspect the workman. He put marks on several switches and valves. When these disappeared he managed to visit the new home and investigate. There he found the missing fixtures. The quantity stolen was considerable. Upon being faced with the discovery, the mechanic confessed. Rather than face prosecution, he paid for the stolen goods by extra work in the plant. Needing money to build his home, he found it easy to take whatever accessories he needed, little by little. He was kept on the job and never repeated the offense.

In another instance three employees were involved in thefts from their employer and all three went to jail. Involved were a salesman, a delivery man and an assistant shipping clerk. They did a wholesale business. The salesman sold the goods at reduced prices and collected for them, the truckman delivered them and the clerk managed to pack and ship cases of items as required. The amount involved ran into thousands of dollars and the system of thieving was so well planned that it was only through a lucky break that it was discovered.

These incidents with which I am familiar involved larger thefts. Petty stealing of smaller items is difficult to detect. Mechanics are wont to pilfer small tools belonging to their company or fellow employees. To prevent this, all tools should have the owner's name stamped on them with a steel die. Some companies require that all tools under six or eight inches be furnished by the workmen.

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Finished products disappear by being concealed on the workman's person or in his lunch box. To reduce such thefts, a policy of having a watchman stationed at the time clock is advantageous. All packages taken out should have a duplicate tag with the O.K. of the employee's overseer. One portion of the tag is collected by the watchman and returned to the employee's department. Instead of having closed individual lockers, it is constructive to have open lockers with one or two doors on the locker room. The watchman locks and opens these doors at stated convenient times. No employee may enter the locker room during work hours except by special permission. Honest employees recognize that such procedure protects not only the company but also themselves.

Factory records, especially if they are handwritten, afford an easy method for a dishonest clerk in the stores, shipping or receiving departments to falsify records. It is a simple matter to alter figures. For example, 1100 can easily be transformed to 1400 or 100 to 2100. Then, too, items may be inserted to pad a handwritten slip. For this reason it is good practice not only to have duplicate copies of slips and orders which should be typed or otherwise written up to prevent any alterations.

Methods to control thefts must go beyond the usual mechanical methods. Many companies realize that adequate and proper personnel supervision pays off. Bonding employees is a common procedure. Workmen who are under paid, overworked and unjustly criticized will steal to get even and have the opinion they are merely taking what is coming to them. An additional precaution should be requiring more than one employee to handle one function or phase of an important job. An occasional check-up by outside auditors, on the same scale as bank examiners operate, pays in deterring pilfering. Prevention of overtime work, especially alone, is advisable. Insistence that a vacation when due be taken is also important. Insurance companies have found that if an employee declines a vacation due him it is very probable he is defrauding the company.

While thefts, especially inside thieving, are a disagreeable chore for the production man, they are always with us and cannot be neglected.

Mixed Bed Demineralizer

AN informative bulletin, No. 3983, detailing the advantages of mixed bed demineralization has been made available by Permutit Co., 330 W. 42nd Street, New York 36, N.Y. The booklet reviews the practical experiences and the economy of operation in utilizing the first fully automatic mixed bed equipment to produce make-up water. In a table showing the comparison of equipment cost of an evaporator plant with a demineralizer, it proves that considerable capital expenditure is saved by use of the demineralizer.

The bulletin also gives a complete operating description of the process, shows installed equipment together with a schematic diagram of the demineralizer control arrangement. Summing up, it compares evaporator make-up costs to demineralizer make-up costs. Demineralization is decidedly more economical.

Electric Vibrators

A NEW illustrated catalog, announcing their new line of electric vibrators, has been published by the Cleveland Vibrator Co., Cleveland, O. The brochure contains factual and technical data on the new line of vibrators known as the Model RC Cleveland and the Model MC. The new Cleveland electric vibrator will handle any granular material—coal, sand, gravel, cinders, wood chips, in an almost noiseless operation, with extremely heavy impact for its weight. A totally enclosed housing seals the unit from moisture and dust. The Cleveland Vibrator Company is located at 2828 Clinton Ave., Cleveland, O.

The system is used in many of the chemical plants to handle powdered and granular materials.

Process Heating System

A NEW bulletin has recently been issued by Eclipse Fuel Engineering Co., Rockford, Ill., on Dowtherm vaporizers and heaters. This advanced system of process heating is worth study. It saves fuel, time, and labor. Products of uniform quality can be turned out with this equipment, which also eliminates local overheating, fire hazards and achieves simple temperature control. For individual processes it has other advantages. Eclipse offices are located in the principal cities. A bulletin is available upon request.

Refrigeration System

A UNIQUE portable refrigeration system, exclusively built by A. Daigger & Co., Chicago 10, comprises a sturdy sealed unit that serves many cooling requirements. Complete control gives any cooling capacity, large enough to cool the largest of water baths, and yet small enough to fit into a corner of a flexaframe set-up neatly.

The system features an O F Unit to meet exacting needs and has a variety of applications. It is used for control of constant temperature work, replaces dry ice in small containers, temporary storage for stable chemicals, cooling unit for fractionation columns, cooling baths for thermometer calibration, a freezing stage for microscopes, power source for dry freezing and many other uses. It comes complete with a six foot length of insulated tubing and a copper coil, and is flexible enough for coils of one's own design.

—— ★ ——

Bulletin on "Deltyl"

A new technical bulletin on "Deltyl Extra," an emollient for use in brushless shave creams and aerosol dispensed products, among others, was announced recently by Robert E. Horsey, vice-president in charge of sales for Givaudan-Delawanna, Inc., New York. Technical

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bulletin GD-2 contains toxicity data on "Deltyl Extra" as well as information on its general characteristics and its application in cosmetics. The final section of the bulletin consists of cosmetic formulations in which "Deltyl Extra" is used.

Copies of the technical bulletin are available from Givaudan-Delawanna, Inc., 330 W. 42nd St., New York 36, N. Y.

—★—

Swift Industrial Oil Data

An eight-page bulletin, which catalogs its complete line of industrial oil and fatty acid products was announced recently by the industrial oil department of Swift & Co., Chicago.

Detailed specifications, shipping information and suggested uses for products of animal, vegetable and marine sources are included in the bulletin. Covered are: oleic acids, red oils, stearic acids, glycerines, hydrogenated and sulfonated products; tallow, lard oils and stearine. Data are also given on specialized products including defoamers, esters, metal and wool processing oils and Spermaceti USP.

Copies may be obtained by interested users from Swift & Co., Industrial Oil Dept., 1800 165th St., Hammond, Ind.

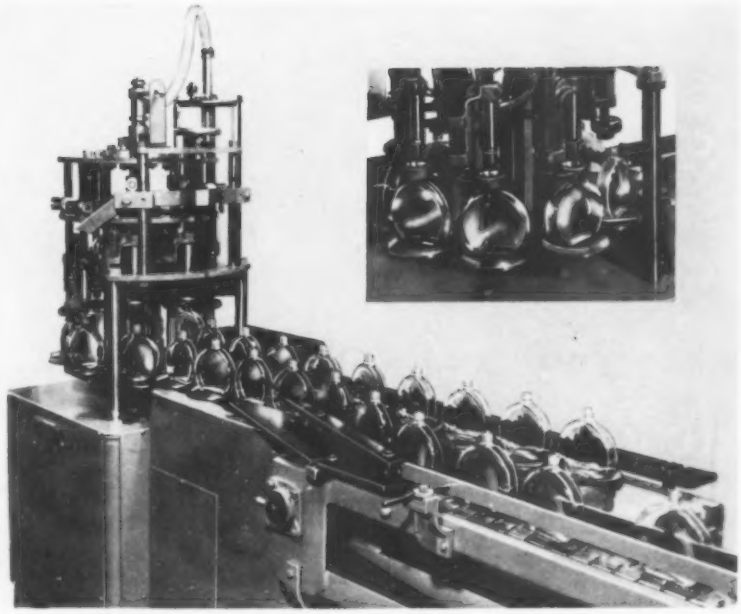
—★—

New Filling Machine

A new liquid filling machine with a novel feed arrangement was announced recently by MRM Co., Brooklyn, N. Y. The new unit permits the filling of containers of any shape or size without changing the feed setup.

The machine was designed particularly for manufacturers of liquid products who do their packaging in a wide variety of containers. It handles odd shape containers that usually cannot be filled on ordinary conveyors.

Short runs can be handled economically with the new unit since costly changeover time is eliminated. The MRM universal feed machine now allows fully automatic operation regardless of the shape of the container or the length of the production run.



New liquid filling machine of MRM Co., Brooklyn, features novel feed arrangement for filling containers of any size or shape without changing feed setup.

The feed arrangement of the new machine consists of a series of flat plates mounted on a chain. The containers are fed on to these plates and are carried under the filling nozzles by the moving chain. Since the plates are permanently synchronized with the filling nozzles, all stars and guides are eliminated and any shape or size container can be accomodated. The machine will handle all types of containers from fractional ounce to 16 ounce size at production speeds up to 75 per minute.

—★—

Chemical Resistant Tape

A new pressure-sensitive tape that is claimed not to be affected by the action of many reactive chemicals and drastic temperature changes was announced recently by Minnesota Mining and Manufacturing Co., St. Paul, Minn.

Made from Du Pont's polytetrafluoroethylene resin, the new tape—"Scotch" brand sensitive tape No. 549 — combines the properties of "Teflon" film with the chemical and heat resistant properties of a pressure sensitive silicone adhesive. The semi-transparent, blue-gray tape is designed for quick and easy application to a wide variety of surfaces as a protective covering material. In the chemical industry it is expected to help prevent corrosion by protecting exposed surfaces. The 6-mil tape (5-mil film with one-mil of adhesive) features a tensile strength of 15 pounds per inch of tape width, and elongation of 300 percent. The new No. 549 tape is being made available in ½ to five-inch widths on 36 yard rolls.

—★—

Bulletin on Stain Removal

Removal of stains commonly encountered in present-day commercial and institutional laundry practice and materials and methods for handling this work are discussed in the Oct.-Nov.-Dec. issue of *Diamond Washroom Digest,* published by Diamond Alkali Co., Cleveland.

Pointing out the variety of stains to be removed by washing and the results possible by washroom formula variations, the 16-page booklet also calls attention to fiber and color considerations involved. It also discusses how more common properties of natural and man-made textile fibers affect their behavior toward stain removing chemical reagents.

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Products and PROCESSES

Insecticidal Lacquer

A lacquer containing aldrin and dieldrin releases these insecticides in the form of tiny invisible crystals, an action which is accelerated by friction caused by insects crawling on the surface. This process is said to be unaffected by washing and scrubbing and is said to be maintained for at least two years after each application. Such a lacquer has been used to protect a British troopship against insect pests, especially cockroaches. It was sprayed on surfaces in kitchens, messrooms, and other places that might be liable to infestation.

Formula of the product (parts by weight) is given as follows: urea resin 50; alkyd resin 50; butanol, 27.5; xylol, 22.5; dieldrin, 12; and aldrin 12. The accelerator (sulfuric acid 10 percent vol.) is finally added to the above in the proportion of 1:20. A British patent filed by National Research Development Corp. protects the lacquer. *Chem. Trade Journal* & *Chem. Eng.*, Aug. 13, 1954, page 402.

—★—

Gel Formation in Soaps

Addition of electrolytes to aqueous soap solutions forms viscoelastic gels. If it is assumed that the soap molecules in the gels exist either in small, detached spherical micelles or long interlinked cylindrical micelles, the relative stability of each type of micelle can be calculated from the surface energies and molecular dimensions of the various atomic groupings, once appropriate assumptions as to the nature of the micelles have been made. The semiquantitative results correctly predict the similar viscoelastic behaviors of sodium oleyl sulfate and sodium elaidate gels and the lesser elasticity of sodium oleate gels. The decrease in micellar size resulting from the addition of short-chain alcohols almost completely destroy gel elasticity, in agreement with theory. Addition of sodium perfluorohexanoate to coventional soap gels decreases gel elasticity. N. Pilpel (Univ. of London) *J. Colloid Sci.* 9, 285-99 (1954) through *Chem. Abstracts*, Vol. 48, page 11818.

—★—

New Type Monoglyceride

The first molecular-distilled monoglyceride to be manufactured in Europe was introduced this summer by Advita Ltd., Liverpool, England, under the tradename "Hymono."

The product is described as containing glyceryl monostearate, 90 percent (compared with 32 percent in most products treated by other methods); di and triglycerides, four percent; glycerine, five percent; fatty acids, one percent. While concentrating the monoglyceride, molecular distillation also removes unwanted materials and has a deodorizing effect. The monoglyceride thus produced is not self-emulsifying. However, if self emulsifying properties are required, these can be produced by adding to the pure monoglyceride a suitable percentage of the sodium salt of the fatty acid.

"Hymono" is currently being offered in flake form, but the firm expects to make it as a powder in the near future. Most of the material made by molecular distillation at this time is the monostearate, but production of monooleate and other monoglycerides presents no particular problems. *Chem. Trade Journal* & *Chem. Eng.*, July 23, page 214.

—★—

Polishing Aluminum

In a process for polishing aluminum surfaces chemically, the surface of the metal to be polished is thorougly degreased by means of washing with benzene or another solvent. The aluminum is then dipped in a mixture of ortho-phosphoric acid, nitric acid, and acetic acid and kept there for four minutes at a temperature of 118° to 122°. The material is then removed and rinsed with water. The process was developed by the National Metal-lurgical Laboratory, Jamshedpur, India. Through *Chem. Trade Journal* & *Chem. Eng.*, Aug. 6, 1954, page 368.

—★—

Wool Wax by Flotation

A process for the recovery of wool wax by flotation is described in the current annual report of the Australian Commonwealth Scientific and Industrial Research Organization.

From liquors containing 1.5 percent wax, flotation is reported to recover 50 percent, and a higher percentage is recovered from richer liquors. Through *Chem. Trade Journal* & *Chem. Eng.*, Aug. 6, 1954, page 332.

—★—

Oldest Soap Firm?

The Koninklijke N.V.C.A. Woltman Elper's Zeepfabried de Vergulde Hand, Amsterdam, Holland soap manufacturing firm, recently commemorated the 400th anniversary of its establishment. Since 1695 the affairs of the firm have been in the hands of one family. It is believed that this may be one of the oldest soap firms in the world.

—★—

Henkel Sulfonamide Patent

Benzene sulfonamides having at least one reactive H on the N and substituted on the nucleus by alkyl or cycloalkyl groups of at least four carbon atoms are treated with ethylene oxide in various molar proportions to give polyether products of capillary active properties which may be used in conjunction with many other substances as washing agents.

In examples, alkyl benzene sulfonamide compounds obtainable by conversion of Fischer-Tropsch products into alkyl or cycloalkyl benzenes, followed by conversion to the sulfochloride and reacting with ammonia, methylamine, aniline or cyclo-hexylamine, are treated with ethylene oxide to give polyether products containing from six to 23 moles of ethylene oxide. English patent 678,004, Henkel & Cie.

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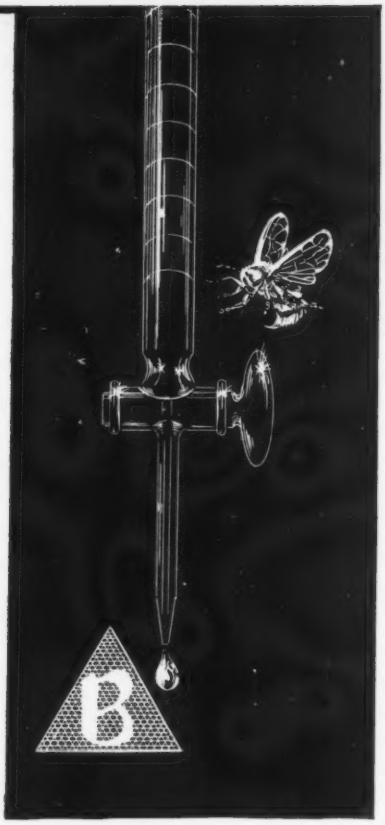

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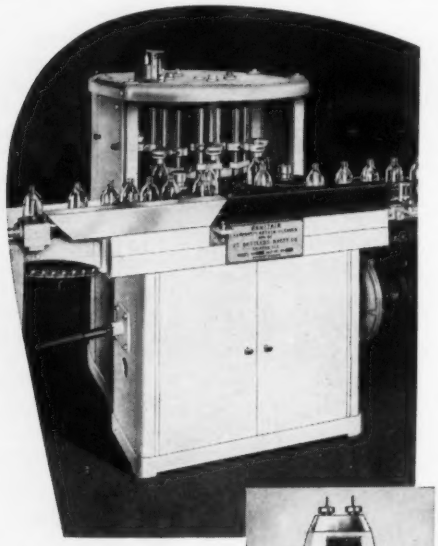

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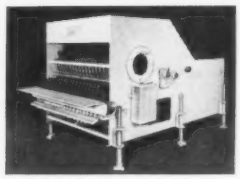
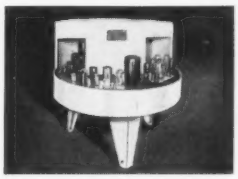


U. S. Load-A-Matic automatically unscrambles and rinses containers at high speed. Handles up to 12 oz. containers, catsup bottles, etc. Write for Load-A-Matic Bulletin.



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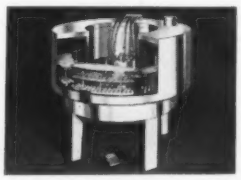

U. S. Ampoule Rinser is built entirely of stainless steel. Teflon valve seats never require lubrication. Write for full details.

NEW Patents

The information below is furnished by patent law offices of

LANCASTER, ALLWINE & ROMMEL
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The data listed below is only a brief review of recently issued pertinent patents obtained by various U. S. Patent Office registered attorneys for manufacturers and/or inventors. Complete copies may be obtained direct from Lancaster, Allwine & Rommel by sending 50c for each copy desired. $1.00 for Canada. They will be pleased to give you free preliminary patent advice.

No. 2,690,385. Cleaning Pad and Composition Therefor, patented by Milton Richlin, Bronx, N. Y., assignor to Kimball Chemical Products Corp., Rye, N. Y. A re-usable cloth for cleaning metals which is maintained moist by a humective material is covered. The cloth is impregnated with a composition of matter having the following ingredients by weight: 15 to 35% of an acidic material having a pH below 4 in one per cent aqueous concentration, 15 to 35% of an abrasive material, 1 to 15% of a polyhydroxy alcohol and 33 to 67% of water.

No. 2,690,413. Method of Fumigation with Acetylated Halogenated Thiophene, patented by Melvin J. Janes, Flower Hill, N. Y., and Duncan J. Crowley, Penns Grove, N. J., assignors to Socony-Vacuum Oil Co. This patent covers a method of killing insects and nematodes subject to destruction by fumigation, which comprises exposing the insects and nematodes to the vapors of an acetylated halogenated thiophene, otherwise unsubstituted, in a confined space, at ambient temperatures, and maintaining said vapors in said space for a period of time and at a concentration sufficient to kill said insects and nematodes.

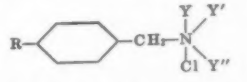
No. 2,689,225. Detergent Compositions, patented by Donald E. Anderson, Groose Ile, and Walter F. Wegst, Wyandotte, Mich., assignors to Wyandotte Chemicals Corp., Wyandotte, Mich. A detergent composition is described consisting essentially of 20-70% of an alkaline detergent salt selected from the group consisting of sodium carbonate, sodium bicarbonate, modified soda, disodium orthphosphate, trisodium orthophosphate, sodium metasilicate, sodium sesquisilicate, water glass, borax and sodium borate, 15-60% of an alkaline condensed phosphate salt selected from the group consisting of tetrasodium pyrophosphate and those polyphosphates of the calcium and magnesium ion sequestering type whose Na_2O/P_2O_5 ratios range from 1:1 to 1.67:1, and 5-25% chlorinated trisodium phosphate.

No. 2,688,590. Method of Separating Tall Oil into a Fatty Acid Product and a Rosin Acid Product, patented by Edmond F. Sission, Richard F. Cole, and Jacob P. Krumbein, Pensacola, Fla., assignors to Newport Industries, Inc., Pensacola, Fla. Disclosed is a process for the separation of fatty acids from refined tall oil containing fatty acids, rosin acids and unsaponifiables. The method comprises pre-heating the tall oil in the absence of a solvent to a temperature less than the decomposition temperature of the rosin acids content of said tall oil, introducing the heated oil into an evaporating zone maintained at a pressure of less than 5 mm. and a temperature of less than 260° C., removing from said evaporating zone a stream composed of vaporized lower boiling constituents rich in fatty acids and residual liquid rich in rosin acids, separating said vaporized lower boiling constituents from said residual rosin acids-rich liquid at a pressure of less than 5 mm., condensing said vaporized lower boiling constituents to obtain a fatty acids-rich fraction, recycling a portion of said residual liquid through said evaporation zone to vaporize the fatty acids contained therein, recycling said fatty acids-rich fraction through said preheating step, said evaporation zone, and said condensation step until a fraction is obtained which contains at least 85% fatty acids, and then heating said fraction containing at least 85% fatty acids to a temperature below the decomposition temperature of the said fraction, introducing the heated fraction into a fractionating zone having an upper rectifying section and a lower stripping section at a point between said sections, maintaining said stripping section at a pressure of less than 20 mm. to remove an unsaponifiables-rich fraction and maintaining said rectifying section at a pressure of less than 5 mm. to concentrate said unsaponifiables-rich fraction as overhead vapors, condensing and cooling said vapors from said rectifying section into a liquid fraction, returning a portion of the resulting liquid fraction as reflux to said rectifying section, recycling a portion of the fatty acids-rich liquid fraction from the stripping section through a heating zone maintained at a pressure of less than 20 mm. of mercury and a temperature of less than 260° C. back into said stripping section of said fractionating zone, introducing the remainder of said fatty acids-rich liquid fraction from said fractionating zone into a reduced pressure zone maintained at a pressure of less than 5 mm. pressure and a temperature less than 260° C., to vaporize the fatty acids in said liquid fraction, and condensing the resulting fatty acids vapors to obtain a product which contains at least 95% fatty acids.

No. 2,689,871. Monochlorobenzene Recovery from DDT Waste Acid, patented by Richard K. Rathmell and Francis C. Zevnik, Metuchen, N. J., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del. A process is disclosed for the recovery of monochlorobenzene from a waste sulfuric acid containing monochlorobenzene sulfonic acid, the steps comprising heating said waste acid to a temperature above 160° C. by rapidly mixing with superheated steam, immediately spraying the mixture into the vapor space of a distillation zone which contains a body of aqueous sulfuric acid maintained at a temperature above 180° C., withdrawing a vaporized mixture of monochlorobenzene and water from the distillation zone, condensing the withdrawn vapors, and separating the condensed monochlorobenzene from the condensed water.

No. 2,689,201. Lindane and Tri-Alkyl Phosphate Insecticide, patented by James W. Hansen, Berkeley, California., assignor to California Spray-Chemical Corporation, Richmond, Calif. An insecticidal composition is patented which comprises as an active toxic component a synergistic combination of the gamma isomer of hexachlorocyclohexane and a trialiphatic ester of phosphoric acid, selected from the group consisting of triethylphosphate and tri(chloroethyl) phosphate which are present in a weight ratio of said trialiphatic ester of phosphoric acid to said gamma isomer of hexachlorocyclohexane in the range of from 1 to 10.

No. 2,689,789. Quaternary Nitrogen Compound Herbicides, patented by David T. Mowry and Arthur H. Schlesinger, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo. A herbicidal composition is covered comprising an oil-in-water emulsion of a quaternary nitrogen compound having the formula



in which R is an alkyl radical of from 5 to 9 carbon atoms, Y and Y′ are alkyl radicals of from 1 to 5 carbon atoms and Y″ is selected from the class consisting of the phenyl radical and alkyl radicals of from 1 to 5 carbon atoms, said nitrogen compounds being present in said emulsion in a

(*Turn to Page* 105)

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SOAP PLANT Observer

By John W. McCutcheon

IS shaving cream becoming a thing of the past and if so why? This question has been bothering the writer for some time, and apparently the only way to "clear the deck" is to put down a few observations made over the years and see where they lead us.

In the first place, a man's beard is a very very personal thing. Everyone apparently has a tough one that requires special treatment. Some can't use anything but a lather cream, others require a brushless product and still others use no cream at all but resort to electric power. Then there are the so-called lather creams in pressurized cans which are really not lather creams at all.

The fact that so many men differ in how they shave indicates that there is something wrong somewhere. The writer has tried them all and always comes back to the good old brush and lather safety-razor routine. And yet for all this fine example he has two sons who are now electric razor fans—this despite arguments, pleadings and threats to cut their allowances. There is no doubt that the electric shaver is a factor to be considered and cannot be dismissed with the statement made by one soaper that, "getting used to an electric shaver is synonymous with getting used to a poor shave"! This soaper, by the way, was associated with a safety razor company. Perhaps his judgment was biased.

However, the writer agrees that there is great merit in the thought. By this time of course the reader should be well aware of the writer's position, namely that the soap industry itself is to blame for the loss of this business by its failure to inform the public properly in just how to use a regular shaving cream to get the best results, and also to refute a few arguments used from time to time that seem unsound. It must be borne in mind however that the opinion expressed here are the writer's own. Perhaps his beard is not normal!

The idea that a shaving cream lather holds the beard upright so the razor can slice through, does not seem tenable. This argument was advanced some years ago by a leading soaper when introducing a lather cream for the first time. Nor is it reasonable to assume that all a lather does is lubricate. If this were true, then a brushless cream would give the same results as a lather cream. The writer has not found this to be so. It seems to the writer that the principal business of the cream is to hold the hot water against the beard long enough to soften it. Cold water will not do the trick and therefore it is reasonable to assume that it is not the water alone which softens the beard but the combination of hot water plus the soap. The soap found most effective is a mixed sodium-potash salt of coconut and stearic acids. Just what factor each plays in assisting the water to soften the beard is hard to say, but a shaving soap formula is probably less subject to experimental change than any other formula in the soaper's entire repertory.

Shaving should be done rapidly right after the application of the cream when the beard is at its maximum softness. If the lather cools, the beard becomes tough again. If a reapplication of lather is made the skin may be tenderized and irritated by prolonged contact with the soap no matter how mild it is.

The repeated application of hot towels to the face, as is customary in barber shops, does have the end result of giving a closer shave, one that will last say eight hours instead of six. The heat seems to cause the hair follicle to stand out from the face farther. However, the procedure is bad, because it tenderizes the skin and sometimes may cause the hair follicles that are cut too short to find a new way through the skin, causing irritation and rash. For all the barber's good intentions, he has set a very bad example, and indirectly has probably been the cause of many a switch to an electric shaver.

For speed, most people now use the safety razor in some form or other. Now all safety razor blades are not as sharp as they should be. Even in the same package the quality can differ. Strange as it may seem the most expensive blades are not always the best.

As a handy safeguard against getting a poor package of blades, it is well to have some type of sharpener around for emergency purposes. There is nothing less satisfactory than trying to shave with a good cream and a poor blade. The blade should be kept clean while shaving by rinsing under warm water after each stroke. Remove and clean and dry the blade before putting away. The writer's experience indicates that a blade shaves better after the first one or two shaves. When a blade starts giving slightly poor satisfaction it is a good idea to remove it after the shave to preclude its reuse. Safety razor shaving should be quick. Anything longer than three minutes is dilly-dallying.

Brushless creams have been popular for a long time. They must be good and the only reason the

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writer can give for his preference to the regular cream is the satisfaction of a warm lather that rinses easily from the razor. The washing of the face afterwards is more readily accomplished. Doubtless many users of the brushless cream do so because the soap is irritating to their skin. Possibly they have a routine which enhances this factor of irritation.

The aerosol type creams also are becoming popular and it appears to the writer that the competition here would be to take business away from the brushless creams users rather than from those using regular cream, since the methods of use and application are fairly similar.

Lack of fundamental research plus a failure to instruct patrons properly in the best methods of shaving, has been the cause of a dwindling market for the regular shaving cream. It is probably too late now to do anything about it!

The following comments on our recent trip to Europe may be of interest to soapers. Detergents are available all over northern Europe in plentiful supply and brands are quite comparable with American standards. Fatty alcohols figure into these products also, although alkyl aryl sulfonates are basic for household use. In Italy, (as far south as Rome at least) the supply is good and competition keen between major producers. The per capita usage is low however since a large portion of the public has very little purchasing power. In countries such as Yugoslavia, Spain and Portugal, detergents are absent as far as the writer could see. These countries are all interested in the development of such an industry but the great difficulty is the lack of automatic equipment. Washing is still largely in the bar soap stage. This must cost the people untold millions in waste due to the general hard water situation. A synthetic bar soap would be of great help. American brand shaving soaps are available everywhere except, possibly, Yugoslavia. In Lisbon the writer was able to get his own personal brand even labelled in standard English. This was in a regular shop in the downtown area.

NEW PATENTS

(*From Page* 101)

quantity which is toxic to plant life.

No. 2,689,174. Herbicides, patented by Jonas Kamlet, Easton, Conn., assignor to Mathieson Chemical Corporation, Baltimore. Patented is a method of selectively destroying undesirable vegetation in an infested area which comprises applying to the infested area a composition comprising a water-soluble salt of methylenebis-(iminosulfonic) acid in a concentration of about 0.5 to 15 weight per cent on the composition.

No. 2,688,626. Fractionation of Fatty Materials, patented by Ralph Miller, Pleasantville, N. Y., assignor to The Chemical Foundation, Inc., a New York membership corporation. A process of producing glyceridic oils is described which comprises initially contacting a fatty oil containing triglycerides and objectionable nonglyceridic substances in a contact zone with a sufficient volume of a liquefied, normally gaseous hydrocarbon at a temperature which insures the formation of two separable liquid phases of different density at the selected ratio; the less dense phase being comprised preponderantly of the solvent containing dissolved triglycerides, the ratio of relatively saturated triglycerides to relatively unsaturated triglycerides in such less dense phase being greater than in the initial fatty oil and the ratio of objectionable non-glyceridic substances to glyceridic substances being markedly less than in the charge oil; and the more dense phase containing the remainder of triglycerides and objectionable non-glyceridic substances of the charge oil; separating the less dense phase from the more dense phase; removing some of the hydrocarbon from the less dense phase; contacting a portion of the hydrocarbon-denuded separated less dense phase with an interesterification catalyst at a temperature sufficiently elevated and for a period of time sufficient to insure redistribution of the acyl groups of the triglycerides returning such separated and rearranged said portion together with the interesterification catalyst to the initial contact zone, and recovering the oil contained in the balance of the hydrocarbon denuded separated less dense phase.

No. 2,688,599. Noncaking Particulate Detergent Composition, patented by Wesley T. Bailey, Walnut Creek, Calif., assignor to California Research Corp., San Francisco, Calif. Patented is a non-caking, free-flowing detergent composition consisting essentially of 30 to 40 parts by weight of sodium polypropylene benzene sulfonate containing 12 to 15 carbon atoms in the polypropylene chain, from 10 to 30 parts by weight of an inorganic sulfate of the group consisting of sodium sulfate and magnesium sulfate, and from 40 to 60 parts by weight of an inorganic phosphate builder of the group consisting of sodium tripolyphosphate and tetrasodium pyrophosphate, said parts by weight of sulfonate, inorganic sulfate and inorganic phosphate adding up to a total of 100 parts by weight, said detergent composition further containing from 3 to 5% by weight of sodium silicate in which the mole ratio of sodium oxide to silica is in the range from about 0.62 about 1.5.

—— ★ ——

Pennsalt Advances Craig

George J. Craig has been appointed assistant secretary of Pennsylvania Salt Manufacturing Co., Philadelphia, it was announced last month by Edward F. Beale, vice-president. In his new capacity, Mr. Craig succeeds Eugene J. Harrington, who recently was named secretary.

pH OF SILICATES

(*From Page* 89)

2.08 on any horizontal line, then moving the left hand point to the intersection of the iso-pH curve 10.8 and the molecular ratio line 2.15. Here may be read 0.0205% Na_2O. The corresponding % SiO_2 value is read to be approximately 0.043% where the other point of the dividers falls on the horizontal 2.15 ratio line. The same principles can be extended to any other charts where concentrations are expressed on a logarithmic basis.

Summary

Electrometric pH results have been correlated and two complete integrated graphical systems of pH-ratio - concentration representation from sodium hydroxide to sodium trisilicate have been developed.

Acknowledgment

The permission of Philadelphia Quartz Company to publish this material is gratefully acknowledged.

Lanolin in Soap

(*From Page* 49)

cob meals alone were performed to determine the amount of color-forming bodies contributed to the total lanolin content by these ingredients. The percent "lanolin" from the soap and meal were calculated on the basis of the percentage of each of these constituents in the formulation and substracted from the total lanolin content. These results are given in Table 2.

Statistically, the standard deviation of a single determination is 0.061 percent. At the 95 percent probability level the limit of uncertainty for a single determination is ± 0.14 percent and ± 0.10 percent for duplicate determinations. The reproducibility and accuracy of the method are considered satisfactory.

Discussion

THE Soxhlet extraction procedure permits easy and quantitative separation of lanolin from soap and vegetable abrasive and avoids the erratic and tedious extraction of lanolin and fatty acid from acidified solution containing insoluble vegetable abrasive. However, matter is extracted from both the soap and corn cob meal which reacts as "lanolin," and a correction factor is therefore necessary. The correction for "lanolin" from corn cob meal is about 0.1 percent and that from soap 0.3 to 0.4 percent when the percentages of these ingredients are that shown in Table 1. The soap correction is surprisingly high considering that the sterol content of the fats and oils normally used in soaps is between 0.1 and 0.3 percent as reported by Bailey.[4] It is therefore evident that some fatty material, in addition to cholesterol, is extracted by petroleum ether and subsequently reacts as lanolin. The nature of this fatty material is not known but it is not rosin since the soaps used were rosin-free.

Acknowledgement

THE technique used for reacting lanolin with acetic anhydride-sulfuric acid was recommended by the Pacific Coast Borax Company. Samples of corn cob meal were kindly supplied by BAW Industries, Rossville, Illinois and Agri-Indus Manufacturing Company, Columbus, Ohio.

References

(1) Interim Federal Specification P-D-00221b (Navy, Ships) of 30 Oct. 1953 for Detergent, Hand, Paste and Powder, Mechanic's

(2) Federal Specification P-S-628a of 5 Dec. 1951 for Soap-Borax Powder, for Dispensers

(3) Federal Specification P-S-596c of 26 May 1952 for Soap, Laundry, Powdered

(4) Bailey, A. E., "Industrial Oil and Fat Products," Interscience Publishers, Inc., New York, 1945.

The views in this article are the authors' and should not be considered as the official views of the Department of the Navy.

Table 2. Lanolin Content of Various Laboratory-Prepared Detergents

Product	Lanolin (percent)	"Lanolin" from corn cob meal (percent)	"Lanolin" from soap (percent)	Corrected lanolin content (percent)	Average corrected lanolin content (percent)
A	3.38	0.07	0.42	2.89	
A	3.38	0.07	0.42	2.89	
A	3.40	0.07	0.42	2.91	
A	3.53	0.07	0.42	3.04	2.93
B	3.42	0.09	0.29	3.04	
B	3.38	0.09	0.29	3.00	3.02
C	3.28	0.09	0.29	2.90	
C	3.35	0.09	0.29	2.97	
C	3.43	0.09	0.29	3.05	
C	3.48	0.09	0.29	3.10	3.01

Grand average 2.98 percent

—★—

Solvay Sales Names Three

Three appointments in the sales department of Solvay Process Division, Allied Chemical & Dye Corp., New York, were announced recently by H. F. Merritt, vice-president.

Advanced to the position of manager of their respective departments were: R. B. Anthony, special alkalies section; F. P. Boehm, ammonium and potassium products section, and H. R. Smith, calcium chloride section.

A graduate of Brown University, Mr. Anthony joined Solvay in 1928 as a salesman. Assigned to the Boston branch, he worked in that territory until his appointment in 1953 as assistant manager of the department he now heads.

Shortly after receiving his B.A. degree from Texas Western College at El Paso in 1939, Mr. Boehm was employed in Solvay's technical service department. He served with the Navy in both the Atlantic and Pacific theaters during World War II. Discharged as a lieutenant in 1946, Mr. Boehm returned to Solvay's technical service department. He was appointed assistant manager of the ammonium and potassium products section in 1953.

Mr. Smith, an alumnus of Purdue University, joined Solvay's technical service department at Syracuse in 1936. He transferred to the sales department in 1941, performing field engineering and promotional work in connection with calcium chloride sales until his present appointment.

Chemical Specialties

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Printed proceedings covering the fortieth mid-year meeting of the Chemical Specialties Manufacturers Association, held May 24-25, 1954 at Cincinnati, are now available for general sale to non-members of the Association. These published proceedings include all reports, papers and discussions at general sessions and divisional meetings. Also lists officers, board of governors, committee members and general association membership.

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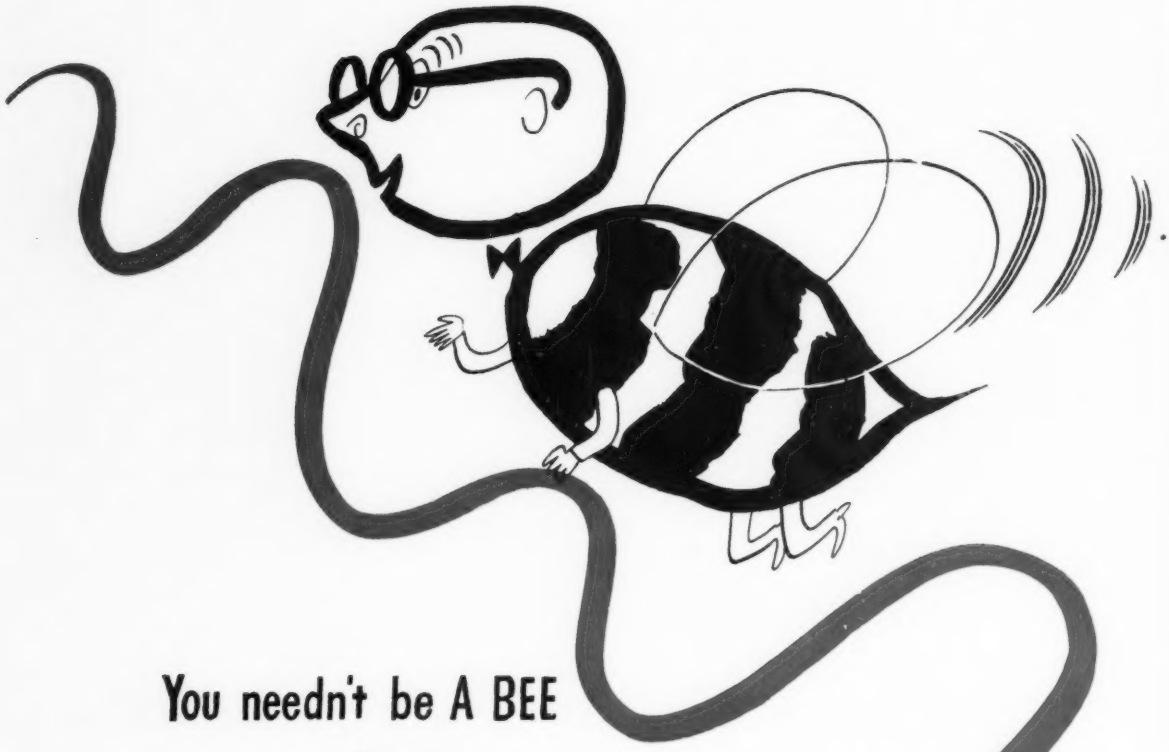

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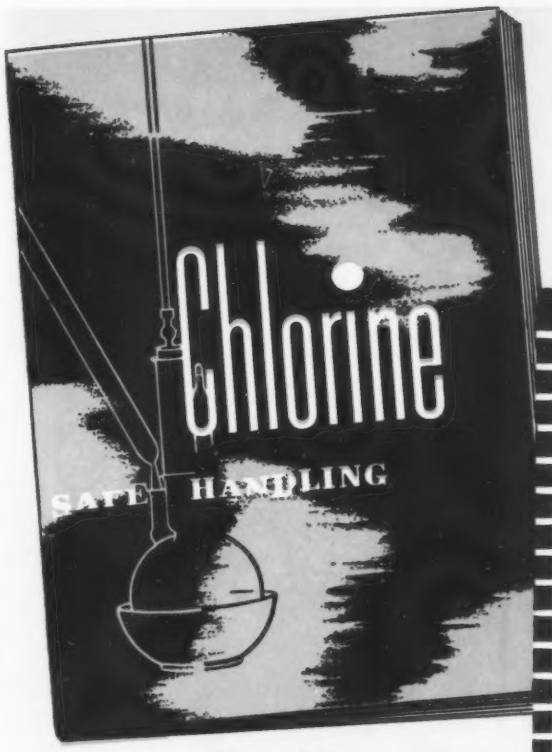

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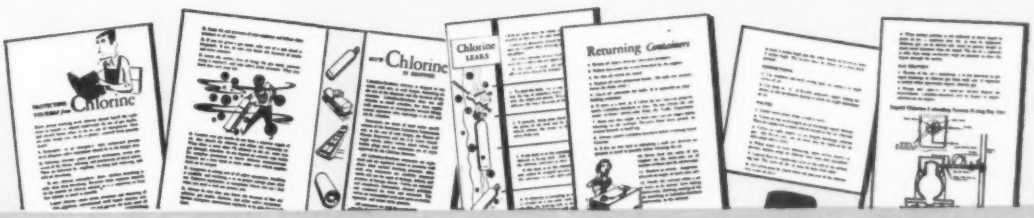

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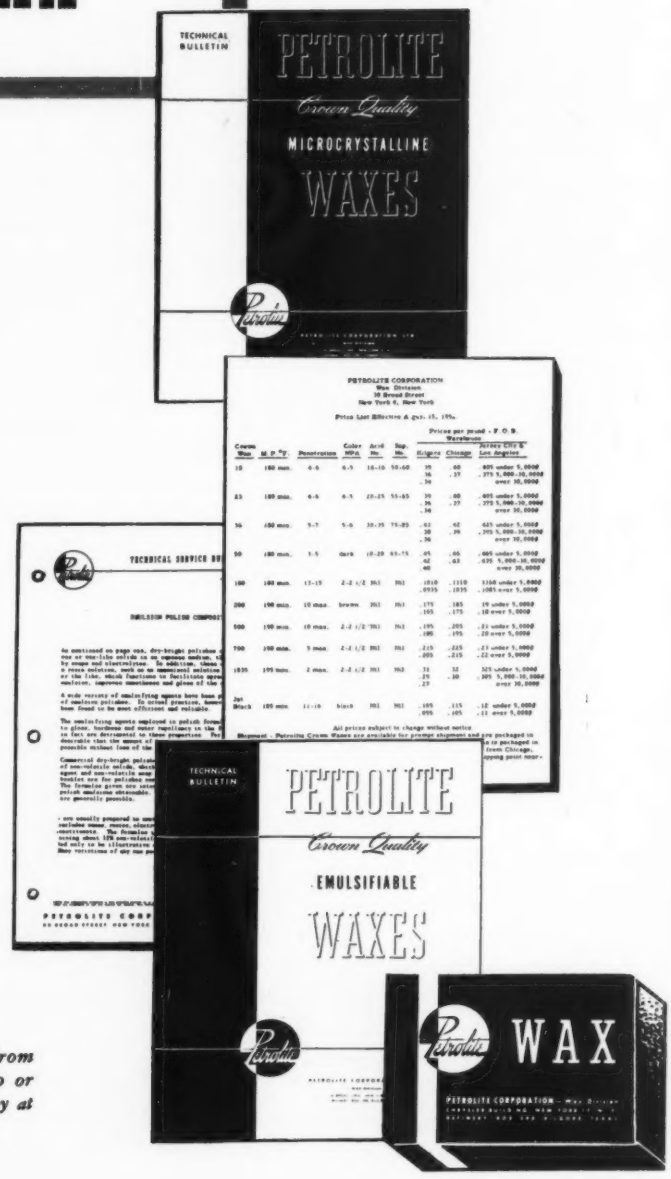

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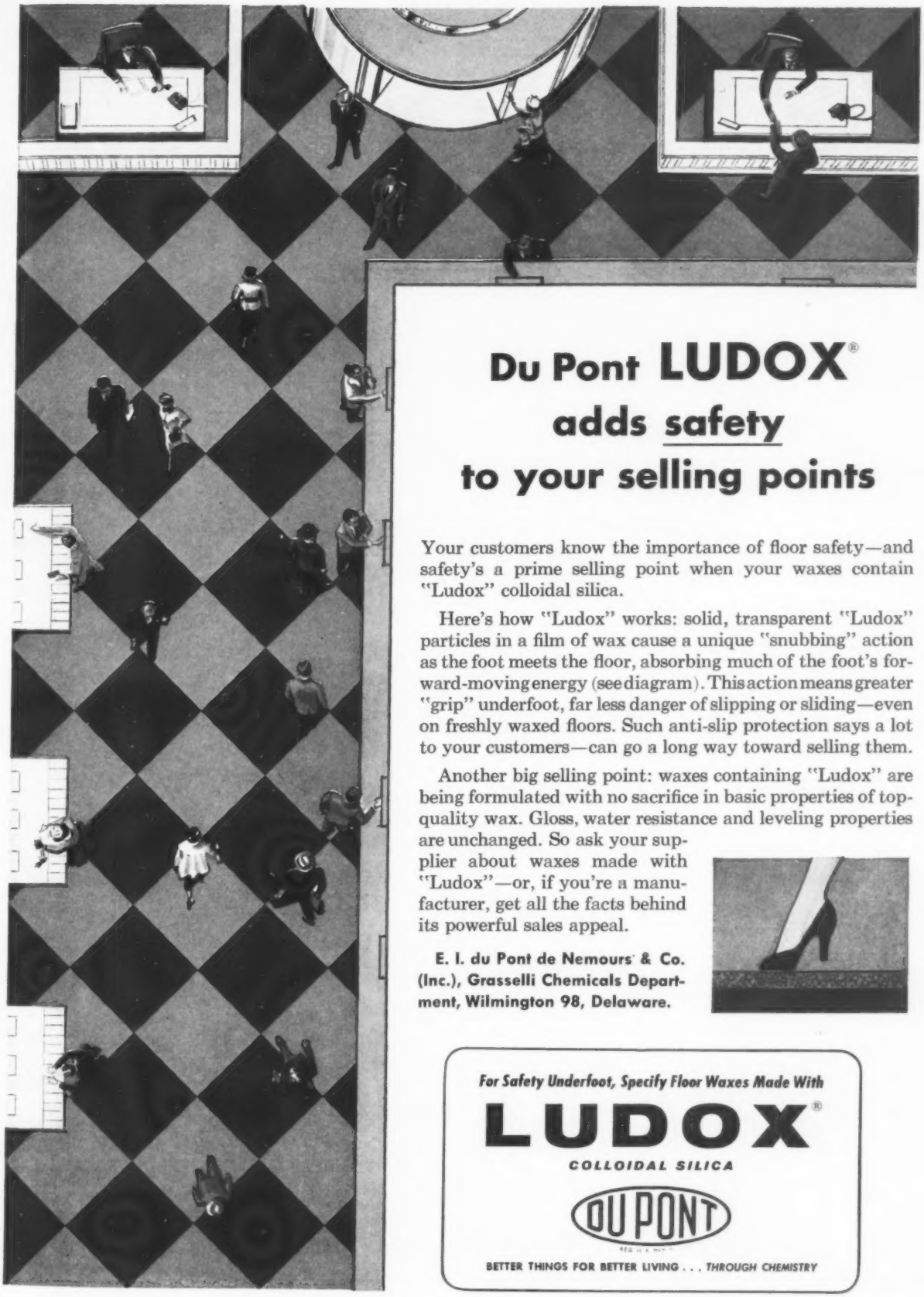

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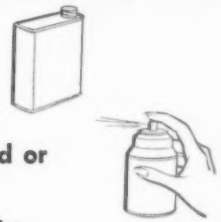

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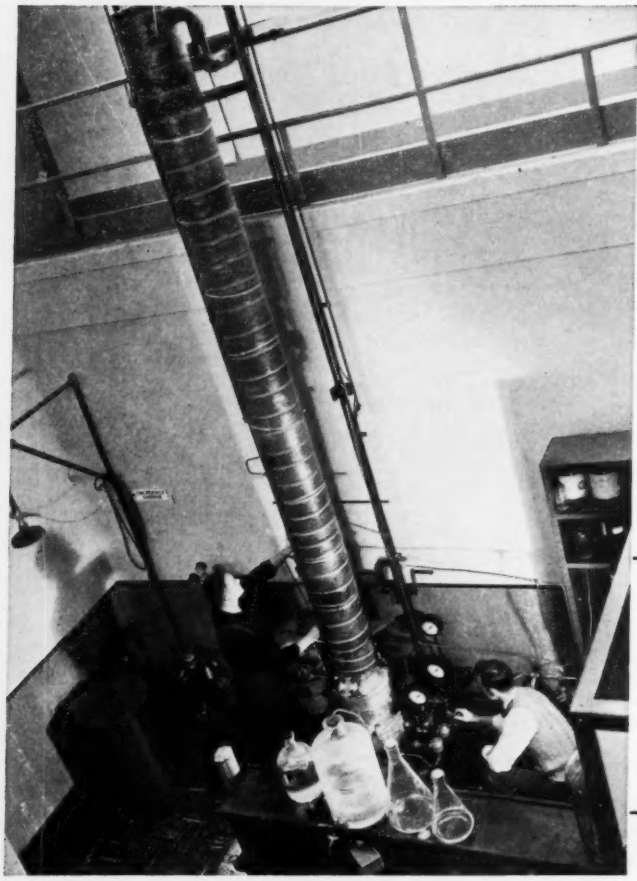

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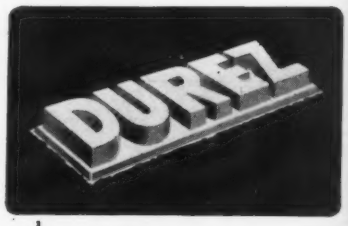

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Wax Removing Floor Cleaners

By H. E. Wassell and L. D. Berger, Jr.*
Carbide and Carbon Chemicals Co.

THERE has been an increasing demand over the past few years for a cleaner to remove accumulated coatings of wax and soil from all types of floors with a minimum of work and without damaging the underlying surface. The interest of manufacturers in meeting this demand has been further stimulated by the issuance in August, 1953 of a proposed Federal Specification, Number P-R-00201 (GSA-FSS) covering a wax remover formulation.

Although liquid wax polishes have long been used to improve the appearance and wearing properties of many surfaces, there are still only two basic systems for formulating waxes to produce a polish: (1) solvent solutions or dispersions and (2) water emulsions of the wax. The logical means of removing a wax film is through the use of one of these systems. Solvents are precluded for general use because of their deleterious effect upon many flooring materials, possible safety and health hazards and the economics involved. Therefore, only water base wax removing cleaners will be considered here.

To produce an emulsion of wax in formulating a wax polish, the melted wax is combined with emulsifying agent at elevated temperature and boiling water is added. Since it is not possible to duplicate these conditions on the floor surface, other means must be used to obtain the desired mixture of emulsifier and wax to permit emulsification and removal of the wax film.

Properties of a Remover

OUR studies indicate that one of the most important properties of a wax remover formulation is its ability to penetrate the film wax on the floor surface, in addition simply to spreading and wetting the film surface.

The formulation should therefore be developed to give good penetration. This can be accomplished by proper selection of in-

* Paper presented during 40th annual meeting Chemical Specialties Manufacturers Assn., Washington, D. C., Dec. 8, 1953.

gredients, and by designing the cleaner to be applied so that it will remain on the surface in a moist condition long enough for penetration to occur. Penetration is a slower process than wetting, and adequate contact time is essential if good results are to be obtained. Good penetration also requires the use of higher concentrations of surface active agent than are required to give simple wetting.

Elevated temperatures tend to accelerate penetration, but a cleaner solution which is applied hot will not remain hot very long on the floor surface. Adequate contact time is therefore even more important to permit penetration at floor temperatures.

An effective cleaner must disperse and deflocculate the wax and soil aggregates and maintain them in a dispersed state to permit mopping or flushing from the floor surface without redeposition. Removal of wax and soil must, of course, be accomplished with a minimum of mechanical work. The proposed Federal Specification for wax removers, in section 4, indicates that complete removal of wax and soil shall be effected by permitting the cleaner solution to soak on the test area for five minutes, followed by dry mopping of excess cleaner, a rinse with clear water, and a repeat dry mopping. This requirement is somewhat optimistic as judged by our experience with such formulations.

To permit use of the final formulation on all types of flooring materials, it is apparent that it cannot include free acid, strong inorganic alkalis, or solvents for such materials as vinyl resins, rubber, linoleum or asphalt tile. In addition, the proposed Federal Specification states that the remover must have a mild and pleasant odor with no odor of pine oil, must have a pH at use dilution in the range 7.0 to 11.0 and must form clear solutions in both distilled and hard water.

With these basic requirements in mind, it is possible to evaluate the materials which may be used in the formulation of a wax remover with respect to the fundamental properties involved in the performance of the final product.

It is immediately apparent that the basic components of the formulation should be an emulsifying agent, such as soap, and a penetrant. Soap solutions in addition to their emulsifying action, provide excellent cleansing characteristics, and show a greater tendency to spread evenly and completely over a film of soiled wax and remain moist than do solutions of synthetic detergents plus thickeners. In addition, soap solutions have good foaming properties which are usually desired in a product of this type and which are required by the proposed Federal Specification. The methods for evaluating the emulsifying and cleaning performance of soaps are well known and the formulator will undoubtedly base his choice of soaps to be used on materials readily available, his knowledge of their performance and economic considerations.

Because of the importance of penetrating action, a good penetrant should be included in the product. Synthetic active agents are in general the best penetrants, and the choice of materials should be based on considerations of effectiveness and cost. We have developed a method for evaluating the penetrating power of surface active agents, as distinguished from wetting power, which may be of assistance in selecting materials for formulations of this type.

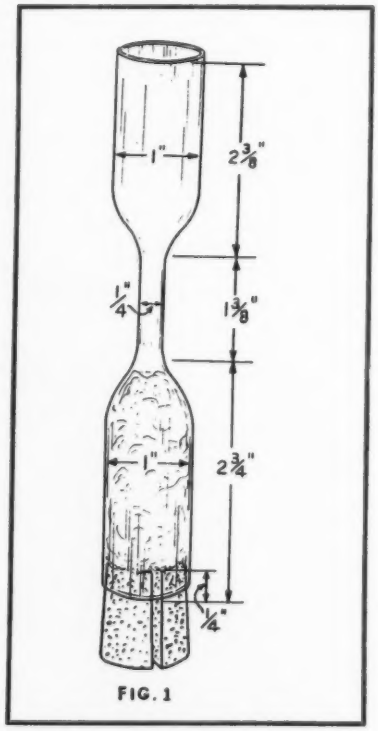

FIG. 1

Figure I illustrates the special tube which has been designed for this test. Six grams of grey unboiled cotton batting is packed into the lower reservoir, taking care to maintain as much uniformity as possible in the density of the cotton. The cotton is held in place with a slotted stopper, and the tube is placed in a 250 ml. beaker for convenience. The test is made by pouring a 20 ml. sample of the surfactant solution being tested into the upper reservoir of the tube. Timing is commenced as the sample is poured into the tube, and is stopped as the upper meniscus of the solution reaches a mark etched at the middle of the tube connecting the upper and lower reservoirs.

There are obviously a number of shortcomings to this procedure, but an experienced operator can get fairly reproducible results if one lot of cotton is used in a series of tests. Definite differentiation between wetting action as measured by the Draves test and penetrating action can be shown for individual surface active agents.

Dispersing Action

AN effective wax remover formulation should contain a dispersant which will give it the ability to deflocculate and disperse the wax and soil removed from the floor surface and to hold them in a dispersed state. This property of dispersing power is not so readily measured as are wetting or penetrating actions but the formulator may do well to give it some attention. Insufficient dispersing power has been recognized as one of the major reasons for poor performance in floor cleaners, for no matter how

well the formulation removes soil initially, the final result is poor if the soil is redeposited on the floor surface as the cleaner is mopped or flushed away.

There are several references in the literature to methods for measuring dispersing power. Snell and Reich (1) developed a method based on the turbidimetrical measurement of the dispersion of oil treated umber particles in the detergent solution. A standardized amount of the oily pigment is added to stock detergent solutions and placed in 100 ml. Nessler tubes. After 25 inversions, the tubes are allowed to stand for two hours, after which time, 50 ml. is siphoned off from the center of each tube and placed in a 50 ml. Nessler tube. This tube is then placed in a Parr type turbidimeter, in which the transmission of light from a standard one candlepower lamp through the dispersion can be read quantitatively. It can be shown that the amount of pigment present is directly proportional to the reciprocal of the height of the column of dispersion which will just transmit light from the standard source. Thus, a numerical value for the dispersing power of the detergent being tested can be obtained. A variation of this method is employed in our own laboratories for testing the dispersing power of detergents.

Hard Water Tolerance

SINCE the proposed specification for wax removers requires that the concentrate tolerate dilution with hard water, another method used in our laboratories for measuring dispersing power may be of interest. This is a method for measuring the power of an agent to disperse lime soaps formed in hard water. A standard 0.15 per cent sodium soap solution is made up in distilled water and aged for at least 3 days. Varying percentages of the dispersant to be tested are then added to 50 ml. aliquots of this solution, and these test solutions are each added to 50 ml. of standard calcium-magnesium synthetic hard water with a hardness equivalent to 200 p.p.m. as calcium carbonate. The resulting dispersion is placed in a four-ounce bottle and shaken for one minute to induce flocculation. Comparison of dispersing power is obtained visually and by filtering through black rayon filter cloth.

The reader is also referred to papers by Zussman and Bernstein (2) and by Ramachandran, Uppal and Venkataraman (3) for further treatment of the measurement of dispersing power.

Use of Non-Ionics

SOME surface active agents are more or less specific in their action as detergents, wetting agents, penetrants, or emulsifying or dispersing agents. Others may effectively contribute several properties to a formulation. We have found that an agent which is low in wetting efficiency may produce very efficient penetration. Another that is an excellent detergent will have poor wetting and penetrating properties. A few surface active materials possess all of these surface active properties Previous evaluations of a number of different types of surfactants by several methods indicated that a non-ionic agent of the alkyl aryl polyethylene glycol type would probably be best suited for use with a soap in a wax remover formulation. This conclusion was based on the fact that these non-ionics are not only excellent penetrants, but effective dispersing agents as well. In addition, they should contribute to the detergency and wetting properties of the solution. Most non-ionic agents of this type also serve as effective coupling agents to produce a clear solution of remover ingredients in water. These conclusions were confirmed in evaluating various formulations for removing wax films.

Inorganic builders are normally included in cleaner formulations to increase the detergent action of the soap. They also seem to increase the general effectiveness of the solutions for removing wax films. The additions of some sodium silicate should be considered to inhibit container corrosion by the concentrate and to lessen attack on aluminum by its dilute solutions.

Viscosity

GOOD viscosity is attained in the formulations with some combinations of soap, surface active agent, and alkaline builder. However, it may be desirable to include a thickener in some formulations to increase the viscosity of the concentrate and to assist in holding the final solution on the surface being cleaned. Water-soluble materials such as "Cellosize"* hydroxyethyl cellulose or carboxymethyl cellulose can be used effectively for this purpose.

Sequestering Agents

THE wax remover concentrate will be diluted for use by the consumer using water of varying degrees of hardness. Formulations containing soap will therefore maintain their maximum effectiveness if organic sequestering agents, such as the sodium salts of tetracarboxymethyl ethylene diamine, are present to prevent formation of insoluble and magnesium soaps. A sequestering agent will be necessary in most formulations if the product is to meet section 4.3.4 of the proposed Federal Specification for hard water compatibility. The required amount will vary with the type of soap used and also with the amount of nonionic dispersant present. The sequestering agents also improved the foaming properties of most of these formulations.

Suggested Formulations

NOW let us review the suggested formulations set forth in Table I in the light of the previous considerations.

Amine soaps were chosen for these formulations because of their good solubility in and emulsifying

(*Turn to Page* 152)

The terms "Tergitol" and "Cellosize" are registered trademarks of Union Carbide and Carbon Corp.

Givaudan Aerosol

A LARGER aerosol research and development laboratory has just been set up by Givaudan-Delawanna, Inc., New York, in order to keep pace with the growing use of aerosol products and to answer better the ever-increasing demands for technical assistance in the use of this packaging medium. The new facility, which is equipped for testing and filling all types of pressure packages including those made of glass, plastic and nylon, replaces the somewhat smaller laboratory which was set up in 1947 and was, it is believed, the first such laboratory in the industry.

Over the past several years, much work has been done in the Givaudan aerosol laboratory on the compatibility of aromatic chemicals and essential oils with other materials used in aerosol formulations.

The new laboratory is equipped with a large deep freeze unit

CAPTIONS, THIS PAGE

Left to right and top to bottom:
Filling a cylinder with liquefied propellent gas in preparation for filling an aerosol by the cold process.
Using a pressure loading device for filling of foam type aerosol products.
Testing the pressure of a foam type aerosol.

FACING PAGE

Top to bottom: Sealing of the aerosol container.
Preparing glass type aerosol package for sealing.
Weighing perfume ingredients used in the preparation of an aerosol product.
The perfumer sealing a glass aerosol on a sealing machine developed by technical personnel of Givaudan-Delawanna, Inc., New York.

Opens New Laboratories

through which coils carry the propellent gasses. This cold filling system delivers the propellent in a liquid state permitting controlled delivery right into the can. In addition, for use in preparing foam type aerosol products, a pressure loading unit is in use which loads directly through the valve with no refrigeration necessary.

Since the development of the glass aerosol, Givaudan's technical personnel have developed, for use in the aerosol laboratory, a sealing device for this type of container. This piece of apparatus is illustrated in the photographs shown elsewhere on these pages.

More recently, there has been a need for a device which could be used to obtain pressure readings when testing foam-type aerosols. Such a device has been developed and tested by Givaudan chemists and is now in use in the new laboratory and in the industry.

Methodological Studies on Square-Diluent Method for

TESTING DISINFECTANTS

A NEW performance test procedure (the "Square-Diluent" method) for evaluating disinfectants was described briefly in a previous report.[1] Since then, numerous queries regarding the extend of preliminary methodological work on this method have been received. It was felt, therefore, that a detailed description of such preliminary work would be in order.

Experimental Methods, Results

IN summary, the method consists of inoculating one inch squares of surface material (stainless steel, linoleum, etc.) with a mixture of *Micrococcus pyogenes* var. *aureus* cells, *Salmonella schottmuelleri* cells and *Trichophyton interdigitale* spores with or without serum, drying this inoculum, adding disinfectant to the dried films, permitting the disinfectant to act for 10 minutes, and recovering the survivors by plating in differential media. Calculations based on percentage reduction are then reported. The following factors have been the subject of previous discussions and queries and are, therefore, being expanded in this paper.

1. Carriers, Test Organisms

A CONSIDERABLE amount of initial work was performed before the final carriers and test organisms were chosen. The first carrier tested was a stainless steel sheet approximately 27 x 10 inches which was ruled off in four inch squares. Nutrient broth cultures of organisms were added to the surface of the carrier, permitted to dry, and test recoveries made by the following swab methods: swabbing wet; swabbing dry; a wet swabbing followed by a dry one; a succession of wet, dry, wet and dry swabbings, Both water and a non-ionic wetting agent (Triton X-100) were used as diluents. None of the procedures gave consistent, quantitative recovery of organisms.

It was then decided to cut up the large surface into one inch squares to permit handling of the carriers in a way which would improve the recovery of organisms. Replicate squares were seeded with cultures of organisms, the inoculum permitted to dry, and the organisms recovered by three different methods: plating the squares directly into nutrient agar; rinsing the squares in distilled water and plating the latter; and swabbing the squares and plating the water after the swabs had been shaken in this diluent. In later experiments, phosphate buffer was substituted for water. Table I is representative of the results obtained with four species.

In all instances the swabbing procedure was markedly inferior to the other methods of recovery; in three out of four cases, the technique of rinsing the squares in water was superior to the direct agar plating procedure. It is probable that the latter finding was due primarily to the fact that rinsing in water permits more thorough swirling and agitation than does plating the square directly in agar. It is also probable that the superiority of the former procedure is not a result of the breaking up of clumps during the swirling and shaking since three of the four species do not grow in clumps.

In regard to test organisms, *M. pyogenes* var. *aureus* and *T. interdigitale* were selected as representative test organisms of their respective types. The enteric species least affected by drying was found to be *S. schottmuelleri,* and this organism was selected as the Gram-negative test species. Table II illustrates the variation encountered in drying each of the two bacterial species on a series of eight replicate squares: acceptability of any method of this type would require a uniform inoculum on all squares before disinfection. The variation was found to be no greater than that encountered in many other types of biological test procedures.

As previously noted (1), the numbers of organisms recovered from squares inoculated on different days with different cultures vary over a fairly wide range due to the erratic lethal effect on drying. The Gram-negative species exhibits the greatest variation in this respect. Table III gives the frequency distribution of survivor numbers obtained in 32 successive experiments.

Numerous attempts were made to reduce the variation encountered in cell numbers recovered from day to day by altering the rate of drying, the suspending medium and the age of the culture. None of these was successful in reducing the variation. Fortunately, the percentage kill obtained with the disinfectants studied thus far is independent of the number of cells initially present over a large range of the latter, and the observed variation does not contribute a significant error to the test procedure.

In summary, then, the above studies have shown that the test

By R. L. Stedman, E. Kravitz, and H. Bell,[1]

Industrial Test Laboratory
Philadelphia Naval Shipyard

organisms can be inoculated and permitted to dry on one inch stainless steel squares in a manner that will permit subsequent disinfection to be evaluated quantitatively.

2. Recovery of Survivors

THE above method of recovering survivors by rinsing the squares in water or buffer permits the recovery of survivors of different species from the same square, a desirable feature. Therefore, a number of studies were conducted on the next important step: the development of an effective differential culturing procedure for the detection of survivors of disinfection. Differential culturing is necessary because of the staling effect which occurs when survivors of different species grow out on the same plate.

Initial experiments showed that no antagonism between species could be detected on the simple admixture of cultures of *M. pyogenes* var. *aureus* and *S. schottmuelleri* with spore suspensions of *T. interdigitale*, either in the presence or absence of normal horse serum, as is practiced just prior to inoculating the squares. It was obvious that three inhibitors were required for successful differential culturing:

(a) An inhibitor which permitted the growth of *M. pyogenes* var. *aureus* but inhibited *S. schottmuelleri.*

(b) An inhibitor which permitted the growth of *S. schottmuelleri* but inhibited *M. pyogenes* var. *aureus.*

(c) An inhibitor which inhibited the two bacterial species but permitted the growth of *T. interdigitale.*

The short incubation period for bacterial counts precluded the need for a fungal inhibitor in such plates. Bacterial inhibitors were needed in the fungal plates, however, since both bacterial species grew out at 30° C. after a few days.

In the selection of inhibitors, two major criteria were used: the ratio of the inhibitory concentration for the species to be inhibited to the inhibitory concentra-

1 The opinions expressed herein are those of the authors and are not necessarily similar to the views of the Department of the Navy.

Table I. Recovery of Organisms from Squares Using Three Different Methods of Recovery

Broth cultures of organisms dried on one inch squares and survivors of drying recovered by swabbing, plating squares directly into agar or by rinsing squares in water and plating the latter. Inoculum per square: *M. pyogenes* var. *aureus* — 670,000; *S. schottmuelleri* — 28,000,000; *S. typhosa* — 11,900,000; *S. choleraesuis*—4,430,000. One species per square.

	Recovery Method (Cell Numbers)			Relative Recovery		
Test Organism	Square into Agar (A)	Square into Water, Plate Water (B)	Swab, Shake in Water, Plate Water (C)	A	B	C
M. pyogenes var. *aureus*	185,000	216,000	57,200	1.0	1.17	0.31
S. schottmuelleri	445,000	529,000	36,800	1.0	1.19	0.083
S. typhosa	5,650	50,900	0	1.0	9.0	0
S. choleraesuis	41,300	16,800	140	1.0	0.41	<0.01

Table II. Variation of Numbers of Survivors Recovered from Replicate Squares

Broth cultures used to seed eight replicate squares for each organism. The squares were dried and the survivors recovered by rinsing in diluent and plating the latter.

Species	Average number of Cells recovered/ square	Standard Deviation	Coefficient of variation
M. pyogenes var. *aureus*	2.44×10^6	0.69×10^6	28.2%
S. schottmuelleri	4.81×10^6	1.12×10^6	23.2%

Table III. Frequency Distribution of Cell Numbers Recovered from Control Squares of 32 Experiments.

Broth cultures used to inoculate squares. The organisms were dried and then recovered by the rinsing procedure.

	The number of tests giving counts within the indicated ranges				
Species	0-10,000	10,000-100,000	100,000-1,000,000	1,000,000-3,000,000	>3,000,000
M. pyogenes var. *aureus*	0	1	19	10	2
S. schottmuelleri	4	2	18	6	2

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tion for the species to be grown out had to be as large as possible; cells injured by disinfection but still viable had to be able to grow in the presence of the concentration of inhibitor used to inhibit the other species. This latter requirement was necessary since injured cells might require less inhibitor for bacteriostasis than normal cells and, as a result, a level found to be harmless for normal cells might have some deleterious effect on viable injured cells.

A number of inhibitors were tested for their usefulness in roles a), b) and c) listed above. Penicillin G was found to be satisfactory for b) above; the ratio of the inhibitory concentrations for *S. schottmuelleri and M. pyogenes* var. *aureus* was greater than 1:61. Some difficulty was encountered in obtaining an inhibitor for a) above. The ratio of inhibitory concentrations for the two bacterial species was too small in the case of sodium azide. Dihydrostreptomycin was more effective against *M. pyogenes* var. *aureus*. Chloromycetin, aureomycin, and terramycin were not species-specific. Ultimately, polymyxin B sulfate was chosen as the inhibitor for a). The ratio of the inhibitory concentrations for *M. pyogenes* var. *aureus* and *S. schottmuelleri* was greater than 50:1 for this antibiotic. Both penicillin G and polymyxin B sulfate permit the growth of even small numbers of injured cells of one species in the presence of the levels of inhibitor suitable to inhibit the other species as shown in Table IV.

Aureomycin and terramycin were of approximately equal activity as inhibitors for c) above, the latter being, perhaps, slightly more effective. Terramycin was adopted as the standard inhibitor for this purpose.

In summary, no objection could be found experimentally to the use of inhibitors for the differential culturing of survivors of disinfection. The inhibitors were chosen carefully and have subsequently fulfilled their roles well. The use of these inhibitors permits the handling of a mixed inoculum, which, in turn, reduces the amount of work considerably.

3. *Inactivators to Eliminate "Carry-over"*

THE dangers of "carry-over" are well known to those who are acquainted with the properties of germicides having high biological activity and low dilution coefficients. Of these, the quaternary ammonium germicides are among the more troublesome. Some study was given, therefore, to the inclusion of neutralizers in the test procedure when quaternaries were being tested.

A number of neutralizers have been employed by others for the inactivation of quaternaries: phospholipids, new anionic wetting agents and soaps are among the better known. From these, two were selected for study, "Tamol N" and "Asolectin" in "Tween 80." It was found that "Tamol N" antagonized the inhibitory action of polymyxin B sulfate and could not be used. "Asolectin" in "Tween 80" was satisfactory at the low level employed (0.07%) and was adopted for use in both the diluent jars and in the plating medium.

Studies on the need for eliminating "carry-over" were also conducted with phenolic and cresylic type germicides. Apparently, the dilution of the squares in the diluent was sufficient to eliminate "carry-over." Similar results were obtained using nutrient agar with or without horse serum as a non-specific neutralizer. Tests on linol-

Table IV. Successful Growth of Injured Cells of One Species in the Presence of Inhibitor for the other Species.

Cultures of each species added to one inch stainless steel squares, and dried in the usual manner. The squares were then disinfected by levels of germicide which would kill a large number of cells. All survivors plated in nutrient agar with and without inhibitors. (One hundred fifty units of polymyxin B sulfate and 0.3 units penicillin G/ml agar are used routinely in the test procedure).

M. PYOGENES VAR. AUREUS

Germicide	No inhibitor		50 units polymyxin/ml agar		150 units polymyxin/ml agar	
	cells/square	% kill	cells/square	% kill	cells/square	% kill
0	1,430,000	—	1,450,000	—	1,450,000	—
1:5000 quaternary	410	99.97	630	99.96	450	99.97
1:10,000 quaternary	1,020,000	28.7	900,000	37.9	780,000	46.2

S. SCHOTTMUELLERI

Germicide	No inhibitor		0.1 unit penicillin/ml agar		0.5 unit penicillin/ml agar	
	cells/square	% kill	cells/square	% kill	cells/square	% kill
0	61,000	—	60,000	—	38,000	—
1:25,000 quaternary	2600	95.7	2400	96.0	2900	92.4

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eum, which require concentrations of germicide as much as 10 times the amount required to disinfect stainless steel, show that even at very high levels of phenolics, dilution itself is still sufficient to overcome "carry-over".

4. *Method of Calculating Results*

THE Square-Diluent procedure does not permit the calculation of a 100 percent reduction endpoint since the survivors of the disinfection are shaken in 20 ml of diluent and only an aliquot of the latter is plated out. The maximum kill detectable will depend primarily on the number of cells recovered from the control squares, which number will vary from experiment to experiment as previously indicated. Table V gives the maximum number of colonies which can be obtained on plates containing a 1.0 ml aliquot of the 20 ml of diluent and still yield 99.99 or 99.9 percent reduction when varying numbers of cells are recovered from controls.

The use of replicates as outlined in the procedure increases the accuracy of the method by permitting a more valid "average number of colonies per square" to be calculated. Recovery of a series of small numbers of colonies then has greater significance. In addition, a sporadic plate with larger numbers of colonies becomes less significant as the number of replicates increases. For example, a modification of the Square-Diluent procedure has been developed for possible use in regulatory studies. In this modification, eight replicates of a given dilution of germicide are tested. Larger numbers of colonies may then be tolerated on one of the eight plates (assuming the other seven yield 0 colonies) to maintain an "average number of surviving cells/square" which will still be within the 99.99 or 99.9 percent reductions proposed as requirements against the bacteria and fungus, respectively. Table VI illustrates this point with varying number of cells on control squares.

Table V. Maximum Average Numbers of Colonies Which Will Give 99.99% and 99.9% Reductions With Varying Cell Numbers Recovered from Controls.

Theoretical "average number of colonies" indicated in each instance. Fractional values are obtained by averaging replicates.

Average number of cells/square in controls	Maximum average number of colonies permissible to achieve 99.99% reduction	Maximum average number of colonies permissible to achieve 99.9% reduction
10,000	0.05	0.5
50,000	0.25	2.5
100,000	0.5	5
3,000,000	15	150

The accuracy of the data is increased still further by averaging the results of successive runs, each of which contains a number of replicates, usually eight.

It is obvious that increasing the number of replicates results in a significant increase in the time required to complete a test. Unfortunately, biological testing is subject to considerable variations, much of which appears to be beyond the control of the technician. Any sacrifice in the number of replicate experiments almost invariably results in a loss of accuracy since the two are directly related. Any decision involving the reduction of replicate numbers to save time is subject to criticism.

5. *Miscellaneous*

THE day-to-day propagation of the test organisms presents no problem except in the case of the fungus. Degeneration of *T. interdigitale* occurs over a period of time, as manifested by a progressive decrease in the spore crop when cultured according to the published procedure. The following medium, suggested by the American Type Culture Collection, is an improvement in delaying degeneration:

0.2% tryptose
0.1% yeast extract
0.1% beef extract
1.0% glucose, pH 7.2

Also, the rationale recommended by Foster (2) for reducing the number of subcultures has been of as-

(*Turn to Page* 152)

Table VI. Maximum Numbers of Colonies Permissible to Give 99.99% or 99.9% Reduction with Varying Control Numbers (Proposed Regulatory Test)

Eight squares are inoculated and disinfected with a single concentration of germicide. One ml of the 20 ml of diluent is plated in each instance. Assuming seven plates yield 0 colonies, the table indicates the maximum number of colonies permissible on the eighth plate in order to meet the above percentage reductions.

Average number of cells/square in controls	Maximum number of colonies permissible to achieve 99.99% reduction	Maximum number of colonies permissible to achieve 99.9% reduction
10,000	0 (<1)	4
50,000	2	20
100,000	4	40
3,000,000	120	1200

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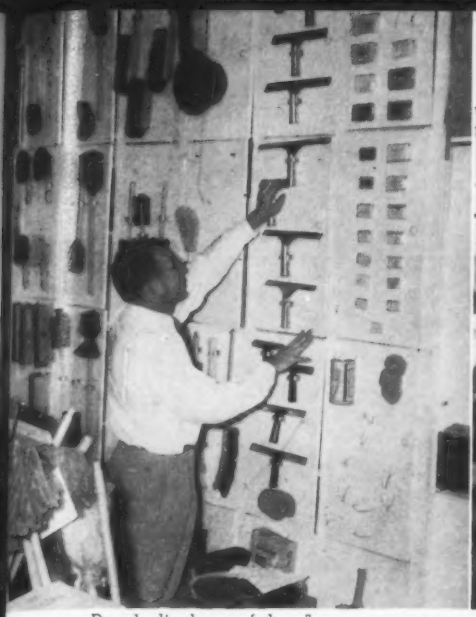


Panel displays of brushes, squeegees and soap are directly in front of storage shelves, which speeds up serving of customers in showroom.

Main building of E. Ojserkis & Sons in Atlantic City. Company sign and slogan are painted on side of building in upper left portion of photo.

Richard Ojserkis checks customer mailing list for name changes, new ownerships, etc., which are common in resort areas such as Atlantic City.

Resort Sanitary Supplier

"SANITARY supply firms should make the most of their peak sales periods to take advantage of their greatest sales opportunities," advises Richard Ojserkis, "otherwise these sales are lost forever. Lost business can never be made up again."

This is one of the main principles of doing business by E. Ojserkis & Sons, Inc., Atlantic City N. J., sanitary supply jobbers. Located as they are in a seasonal seashore resort area in southern New Jersey, the largest part of their sales volume is done during a four months period.

"Fully 60 percent of our business is done from May to August every year," says Dick Ojserkis," with the balance being handled over the other eight months. Southern New Jersey enjoys its greatest activities during these vacations months and in order to make the most of our sales opportunities, we have to be on-the-ball during this period. Business not handled during these months can never be made up again."

These jobbers cover the entire resort region as far south as Cape May. During the 'off season' months, business is conducted on a more stable basis, but with an eye out for the vacation period which accounts for the greatest merchandise turn-over. And because they are so concerned with the timing of their business, they always make the most of their peak sales opportunities.

"The turn-over in management of the various business establishments that we serve is of prime concern to us," says Mr. Ojserkis, "and we must make sure that the new business owners know us so that we can get their business when they start in. Then there are those businesses that close up after the summer season. For example, fully 30% of all the restaurants in this area close up after the vacation period. These situations force us to be ready to serve these customers when they need our products and supplies. But first and foremost, they must know that we are ready to serve them."

Richard Ojserkis, left, with his father, Elias Ojserkis, founder and administrative head of business he began in 1938.

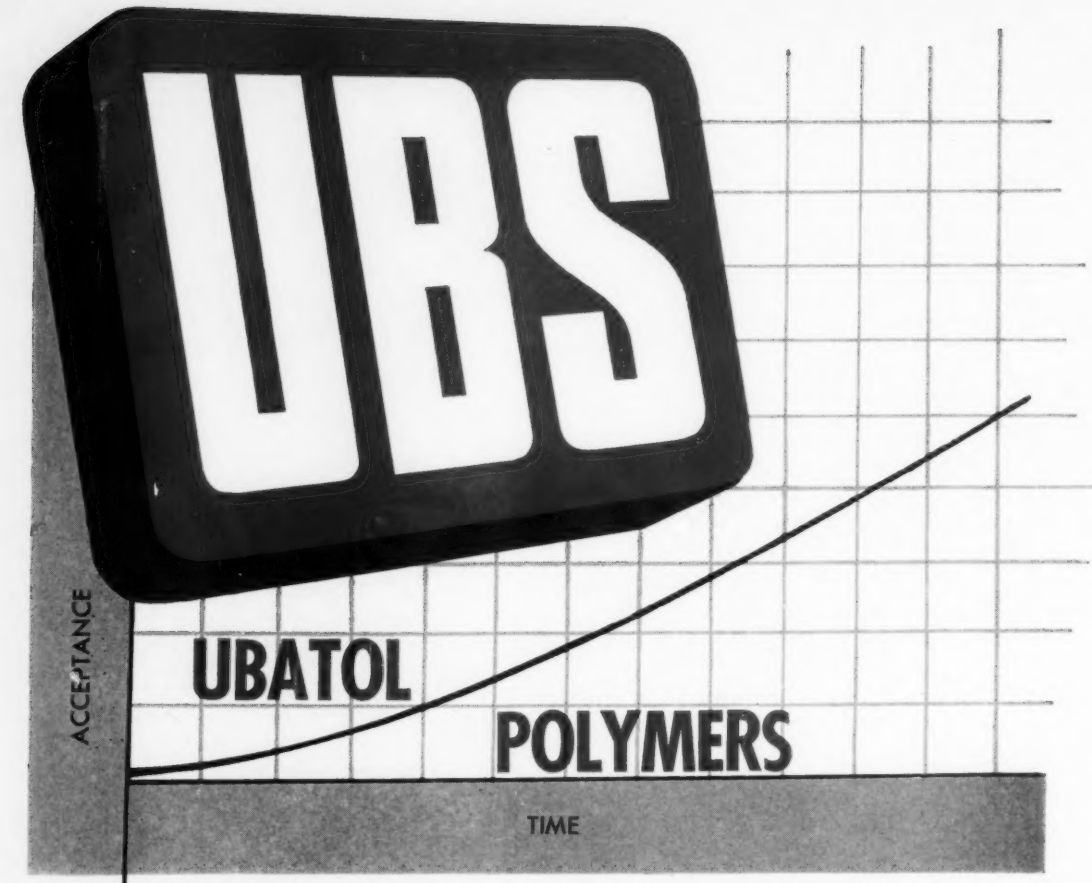
Customer Follow-up

A FORCE of four salesmen is continually contacting customers. As they make their visits, they note when an establishment is closing down, the date of re-opening and if it is going to pass into new hands. Contacts with real estate and business brokers, as well as new business registrants help to prepare Ojserkis for the new or future business contacts.

If a hotel, restaurant, bar or service station is closing down after the season, but is going to reopen under the same management, the contact is easy to maintain. But if a business is passing into new hands, this jobber firm makes every effort to get the name and address of the new owner in order to contact him as soon as possible.

"We depend greatly upon direct mail to keep our name in front of our regular customers and new

(*Turn to Page* 145)



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(*From Page* 141)

prospects," relates Mr. Ojserkis. "We send out over 1000 pieces of mail each month. To our regular customers, we send out manufacturers literature and other material so that we are remembered. To new business owners, we send out other direct mail that introduces us to them, informs them of the merchandise lines that we handle, and tells about our services and products.

"If at all possible, we try to contact the new owners, either personally, if they reside in the area covered by our salesmen, or by telephone. We attempt to make an appointment with them so that we can help them with their initial order. And once this is had, we usually enjoy their follow-up business."

Sells Service

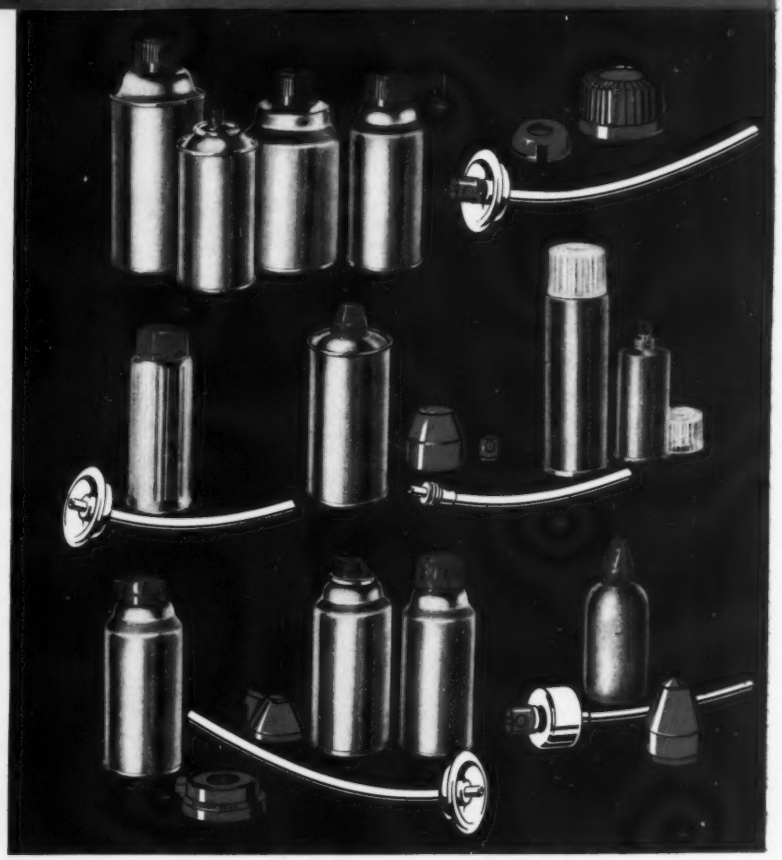
OJSERKIS always promotes service when confronted by price conscious customers. Orders are sent out the same day as received and in case of an emergency, the customer can phone in and get rush service.

"We overcome out-of-town competition my making our customers aware of our service activities," says Mr. Ojserkis. "These sources try to undersell us as a means of getting the local business. When a customer tells us that he can get a better price than ours, we ask them if they can get the same dependable service. Our customers realize that an out of town source can't give them the same service that we do, which tends to overcome price cutting."

Of course, customers are offered better prices when merchandise is purchased in larger quantities, but as a general rule, customers in this highly seasonal region only buy what they can use at the time. That is because space is of such importance here.

Richard Ojserkis, top, right, checks to see if stocks are adequate for store traffic.
Ben Ojserkis, right center, discussing paper requirements with customer, stresses fast delivery.
Close-up of E. Ojserkis entrance. Located in heart of Atlantic City, firm attracts much walk-in business.

THE *Aerosol Valve* FOR YOUR PRODUCT *by Precision*



• So widespread has been the public acceptance and demand for self-dispensing packages equipped with colorful Precision valves, that new type products and additional brands are added daily to the long list enjoying the plus values offered by Precision. To keep pace with this tremendous growth, Precision's production and research are continually expanding both here and abroad so that your package may have the merchandising and technical advantages of a Precision valve regardless of the product, container or filling method involved.

Why is Precision the Leader?

DESIGN . . . The wide range of Precision valves featuring positive, fingertip operation assures a successful solution to your specific spray characteristic requirements.

CONTAINER . . . Precision has a valve engineered for the aerosol container of your choice plus the widest selection of plastic colors to enhance the beauty of your package.

PRODUCTS . . . Plastic construction eliminates corrosion enabling Precision valves to perform efficiently for all products whether foam, residual or true aerosol.

FILLING METHOD . . . All types of aerosol products with Precision valves, are being filled successfully by pressure as well as refrigeration at the lowest cost.

QUALITY . . . Precision's basic research, production skill, development techniques and 100% inspection of over 100,000,000 time-tested valves is your assurance of high quality.

ECONOMY . . . The highest plant production efficiency, as well as the lowest rejection rates for filled containers, assures maximum economy with Precision valves.

AVAILABILITY . . . The world's largest aerosol valve manufacturing facilities, are combined with the latest production methods and techniques, to give production schedules that assure prompt deliveries.

• We invite your inquiry to enable our staff of aerosol valve technicians to work cooperatively in satisfying your valve requirements.

PRECISION

Precision Valve Corporation

700 NEPPERHAN AVENUE • YONKERS 3, NEW YORK

sellers & fillers OF aerosol deodorizers

Meet Magical

METAZENE

(specially refined esters of methacrylic acid)*
**U. S. Patent 2,544,093*

THE TRUE DEODORANT FOR AEROSOLS

Truly magical . . . that's the term so many merchandisers and manufacturers of aerosol deodorizers apply to METAZENE. It's not a masking agent . . . nor a desensitizer . . . but a fast-acting compound that actually destroys odors.

No other compound compares with Metazene in its complete odor-killing properties. Tested and approved over a period of years . . . with an established record of acceptance . . . ideal for today's increased market in household and industrial deodorants. Sales soar with Metazene!

NOTICE! METAZENE is now available in the standard 40% Concentrate as well as the new 80% Concentrate for economical shipment.

WIDELY USED BY PEST CONTROL OPERATORS AND INSTITUTIONAL SANITARY ENGINEERS

Economical METAZENE Concentrate is perfect in mechanical aerosol generators or spraying equipment to control odors in wards, warehouses, dining rooms, etc. It quickly eliminates smoke odor after fires . . . and destroys dead-rodent odors after extermination.

For samples and prices, write:

KILGORE CHEMICALS

division of
ATLANTIC RESEARCH CORPORATION
Alexandria, Virginia

In Canada: Natural Products Corporation, 738 Marin Ave., Montreal, Que.

Control

the *KEYNOTE* to better
REFINED (dewaxed) WHITE SHELLAC
for non-rubbing FLOOR POLISHES

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Control — All raw materials meticulously analyzed for strict conformity to rigid buying specifications.

Control — Every step of the manufacturing process continuously checked to assure uniform production of the highest quality.

Control — Finally, exhaustive tests of finished products to guarantee compliance with customers' specifications, thus safe-guarding the superior quality of their products.

GRP
The *Preferred*
SHELLAC

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GILLESPIE-ROGERS-PYATT CO., INC.
Office: 75 West St., New York 6, N. Y.
Plant and Laboratory: Jersey City, N. J.

Representatives and warehouse stocks in principal cities in the United States and Canada

Businesses in a seasonal area must also make the most of their peak periods and because they do, they have little space left to store large supplies of sanitary products or any other goods for that matter. Hotels, boarding houses, food stands, restaurants and all other users of sanitary supplies can not afford to tie up space with maintenance supplies because they get them at a little better price. The space means more to them for other purposes. That is why hand-to-mouth purchases are typical of resort buying.

"When it comes to small quantity purchases, an outside source can't do better, pricewise than we do," says Mr. Ojserkis, "and we have found that when it is a question of price the customer has to buy larger quantities. We point this out to the customer who may not have realized how much space a large quantity of supplies occupies. By working closely with customers to sell them exactly what they need and in the quantities most easily handled by them, we find ourselves to be out of range of outside competition."

Telephone Service

DURING the fast moving four month period, salesmen only call on volume accounts, new business and answer calls for service. This helps them to make the most of their time during this heavy sales season. Prior to this period, customers are constantly told that Ojserkis is as close to them as their telephone and that they can get immediate delivery with a phone call.

Small orders make up a sizeable percentage of Ojserkis' business. Termed impulse sales, customers have gotten into the habit of calling as soon as they find themselves low on soap, detergents, cleaners, and other sanitary supplies. Some customers may call two or even three times a week. It makes no difference to Ojserkis. In fact, the firm favors frequent calls because it knows that the customer depends upon it completely for all of his sanitary product needs.

E. Ojserkis & Sons carry large display advertisements in all the telephone directories in the counties that they cover. In addition, they have several listings under different product classifications so that any customer seeking a source for any of the products and supplies handled by this jobber in the phone book, must come across the listing.

"Our office girls are especially instructed on the importance of answering calls and writing orders," explains Mr. Ojserkis. "Courtesy is their first consideration. And as they record the order, they also suggest related products and items. They have a list of our products before them which helps them to make suggestions."

Ojserkis utilizes the after-season months for selling new products, floor machines and items that have to be introduced to customers and demonstrated. During the off season the customer has more time available and is more willing to spend it with a salesman. Also, the closing of businesses gives the salesmen more time to spend with their customers.

Salesmen also concentrate their efforts on new business during the off season. A new market that is beginning to account for a sizeable volume of business is the development of motels along the Jersey coast. Contacts are made as they are built and the initial order sought prior to the official opening.

"A customer will not buy a $400 floor machine without demonstration and a lot of consideration," Mr. Ojserkis points out. "This means that a salesman has to spend a substantial amount of his own time as well as that of his customer. And the most suitable time for that is after or before the coming season."

Customer Product Chart

A CUSTOMER product chart helps Ojserkis to get a foot-in-the-door to sell large order customers as many of his products as the firm handles. Hotels are an example. They buy everything from paper napkins to floor machines, and naturally, this jobber wants to get as much of their business as he can. So he has developed a customer product chart that helps him 'break in.'

This chart lists the hotel, name of the manager, sanitary engineer, housekeeper and the number of rooms as well as the features of the hotel such as a laundry, restaurant, bar, pool or other facilities so that every possible use for the products and supplies handled by Ojserkis is noted.

The sheet is then columnarized into the various headings for the products that are consumed, such as detergents, mops, buckets, soaps, paper products, pots and pans, cleaners, dishwashing compounds, etc.

In each column is listed the name of the product and the source from which it is purchased. Each classification is carefully studied and when Ojserkis knows that he has a product superior to that already being purchased by the hotel, he brings it to the attention of the proper individual.

"Its just a waste of our time and that of our customers to just run through a list of all our products and try to sell them to him," Mr. Ojserkis explains. "But once we know the kind of product purchased, its source and related information, we wait until we can offer the same classification of merchandise that equals or is better than that already being obtained elsewhere. Sometimes, factors other than quality or price are involved. We may be in a position to offer customers smaller quantities at the same price. Perhaps we can give them quicker delivery or may be able to suggest a substitute item that will do the same job more effectively and more economically."

For example, liquid soap can be promoted to a customer who is using bar soap in the washrooms because of its economy. Paper towels may be promoted to replace costlier linen towels and different types of deodorants may be sug-

AEROSOLS • ADHESIVES • CLEANING FLUIDS • DETERGENTS
DISINFECTANTS • DRAWING COMPOUNDS (For Metal Work)
EMBALMERS' SUPPLIES • FORMALDEHYDE • FLOOR COVERINGS
FUEL and LUBRICATING OILS and GREASES • FUNGICIDES
GERMICIDES • GLASS CLEANERS • GLUES and PASTE
HOSPITAL DEODORANTS • HOUSEHOLD SPRAYS • INSECTICIDES
JANITORS' SUPPLIES • KENNEL SPRAYS • LACQUERS and PAINTS
LATEX • LINOLEUM • METAL CLEANING COMPOUNDS
NEOPRENE • PAPER PRODUCTS • PARA BLOCKS
PENETRATING or CUTTING OILS • PETROLEUM SOLVENTS
PHOTO ENGRAVING SUPPLIES • PLASTICS • POLISHES
PRINTING INKS • RUBBER • SANITARY SUPPLIES
SICK ROOM SPRAYS • SOAPS • STARCH (Laundry)
STENCIL PAPERS • STOCK and CATTLE SPRAYS
SULFONATED OIL PRODUCTS • TEXTILE CHEMICALS
VETERINARY PRODUCTS • VINYL PLASTICS • WAXES
Right PRODUCT
Right ODOR

2 CONSIDERATIONS THAT WILL DETERMINE YOUR PRODUCT'S SALES

When you put good money and effort into the production, marketing and merchandising of a technical product, be sure of two things:

1. *That it is a product worthy of such support.*
2. *That it has a correctly chosen fragrance, pre-tested to determine its consumer acceptability and appeal.*

Point No. 1 is *your* problem; let point No. 2 be ours! All of our facilities and experience are ready and waiting to help you choose the *right* fragrance for *your* product.

FRITZSCHE *Established* 1871 *Brothers, Inc.*

PORT AUTHORITY BUILDING, 76 NINTH AVENUE, NEW YORK 11, N. Y.

BRANCH OFFICES *and* *STOCKS: *Atlanta, Georgia, Boston, Massachusetts, *Chicago, Illinois, Cincinnati, Ohio, Cleveland, Ohio, *Los Angeles, California, Philadelphia, Pennsylvania, San Francisco, California, St. Louis, Missouri, *Toronto, Canada and *Mexico, D. F. FACTORY: *Clifton, N. J.*

gested. When Mr. Ojserkis finds that he can't induce a customer to buy his products in certain merchandise classifications, he will try to convert them by replacing the item in use with something that is superior.

By concentrating on one product classification each time, this jobber has been able to get more business from his customers.

Improvements are another way of getting extra business from customers. If a salesman knows that the mops are being wrung by hand, he will suggest a replacement mop-wringer bucket. If a housekeeper complains of hand rash due to the use of a cleaner or deodorant, he will suggest a replacement to the hotel management. By knowing fully the hows-and-whys of using sanitary supplies, salesmen have been able to increase the size of their orders from regular customers.

"Here, again, is where the fall or off-season months can be used to advantage," Mr. Ojserkis explains. "Salesmen take more time to talk to employees handling the cleaning and sanitary supply needs of the hotel and get many suggestions that are useful in promoting additional product sales."

The customer product chart also tells the quantities in which these supplies are purchased so that the salesman knows when the customer is ready to re-order. There is no set time when customers are to be called on. Some may require weekly calls, others monthly visits. Each salesman knows his own customers.

Associate Name, Products

DICK Ojserkis has made an all-out attempt to get his customers and prospects to associate his firm name with the products that it sells. Whenever the name appears, there is a tie-in of slogan and trade-mark. The slogan reads, "no fuss call us — everything to clean." And the trade-mark pictures a little janitor at work.

In connection with this effort, this jobber has standardized his colors on labels, letterheads, envelopes and other advertising mediums. Blue and white are constantly being used in connection with his name, slogan and trade mark, so that there is an immediate association of name and product whenever they are noticed.

"The oddity of our name, Ojserkis, that is actually pronounced O'Zerkis has also been of value to us in this relationship," says this young jobber. "For wherever our name appears, right beneath it we have in smaller print a sentence reading "Say O'Zerkis." We have found that all these tie-ins have made our name synonymous with sanitary supplies along the Jersey shore line.

A substantial amount of newspaper advertising is done before the start of every summer season. As everyone is girding for the coming vacation period, every boarding house owner, service station, restaurant, bar, baker and hot dog stand is a prospect for cleaning needs. All businesses in addition to the large hotels, institutions and commercial outlets.

"During the fall season, our customers comprise what may be termed a 'true customer list'. When the summer rolls around, these 'true accounts' double and triple their purchasing volume. In addition, this list is inflated by hundreds of other accounts, mostly in the small order bracket. And by taking care of all this additional business we have been able to do 60% of our entire annual volume in this four months stretch."

In addition to a complete line of nationally branded products, this jobber handles many under his own blue and white Ojserkis label. When customers do not mention product brands, they get this jobber's own label.

A large building and modern store right in the heart of this vacation region has been a terrific over-the-counter business inducement. Businessmen of all types come here to buy merchandise on a cash-and-carry basis.

"We have to be particularly careful with credit," says Ojserkis, "because of the large turn-over of business ownership. Businesses in year round operation are good risks however and we extend them credit over a predetermined period."

The business was founded during the depression years of 1938 by Elias Ojserkis. Through the years his business continued to grow and each of his three sons entered into partnership with the founder. Today, E. Ojserkis and Sons Inc., is a family owned business with Richard, Ben and Maurice handling distinctive functions of the operation with the father its administrative head.

"Our business has come a long way from its original inception," says founder Elias Ojserkis, "but then, so has the entire sanitary supply industry. And all we are interested in doing, is keeping pace with it."

—— ★ ——

New Polio Virucide

The development of a new germicide that will control all three poliomyelitis viruses was announced recently by Edward Plaut, president of Lehn & Fink Products Corp., New York. The new compound, which was developed in the laboratories of Lehn & Fink's German subsidiary, Schülke & Mayr, Hamburg, is being marketed in Germany as "Gevisol." It will be introduced in the U. S. as soon as all preliminary work has been completed.

The virucide, which is intended for use as a general disinfectant, is diluted with water for use in institutions and homes for cleaning woodwork, floors and utensils. It is not intended for internal consumption.

Mr. Plaut said that "Gevisol" has a residual effect that continues for several days. He also indicated the compound might be used in spray form.

The scientific claims of the new virucide have been reviewed by the United States Department of Agriculture.

Lehn & Fink, which is 80 years old, also manufactures "Ly-

AMAZING NEW SOLVENT

☆ no fire hazard

☆ extremely low toxicity

☆ safe for all metals

☆ extra-high solvency

CHLOROTHENE

A product of Dow Chemical and certainly the finest cold cleaning solvent yet produced. Fully the equal of carbon tetrachloride in cleaning power and drying time yet no more toxic than the petroleum naphthas. Completely nonflammable and safe for all metals, including aluminum, brass, magnesium.

FOR SAFER - - - FASTER - - - BETTER CLEANING

Write or phone the nearest stock point of

THE SOLVENTS and CHEMICAL GROUP

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AMSCO SOLVENTS & CHEMICALS CO.—Cincinnati 29, 4619 Reading Road—MElrose 1910

BUFFALO SOLVENTS & CHEMICALS CORP.—BUFFALO—Box 73, Station B—Bedford 1572

CENTRAL SOLVENTS & CHEMICALS CO. — CHICAGO — 2540 W. Flournoy St.—SEeley 3-0505

DIXIE SOLVENTS & CHEMICALS CO. — LOUISVILLE — Dixie Highway at Appleton Lane—ATwood 5828

HOOSIER SOLVENTS & CHEMICALS CORP. — Fort Wayne 8, Nelson Rd., East — ANthony 0213 — Indianapolis 22, 1650 Luett Ave. — MElrose 8-1361

MISSOURI SOLVENTS & CHEMICALS CO. — St. Louis 7, 419 De Soto Ave.—GArfield 1-3495

OHIO SOLVENTS & CHEMICALS CO. — Cleveland 11, 3470 W. 140th St. — CLearwater 1-3770

SOUTHERN SOLVENTS & CHEMICALS CORP.—NEW ORLEANS—1354 Jefferson Highway, P.O. Box 4067. Carrollton Station—Temple 4666

TEXAS SOLVENTS & CHEMICALS CO. — HOUSTON—8501 Market Street—Orchard 6683

WESTERN SOLVENTS & CHEMICALS CO. — DETROIT — 6472 Selkirk Avenue — Walnut 1-6350

WESTERN SOLVENTS & CHEMICALS CO.—TOLEDO — Central Avenue at Reynolds Rd. — Jorden 0761

WESTERN SOLVENTS & CHEMICALS (Canada) Ltd. — WINDSOR — 1454 Crawford Street—Clearwater 2-0933

WISCONSIN SOLVENTS & CHEMICALS CORP. — MILWAUKEE — 1719 South 83rd Street—Greenfield 6-2630

WOLVERINE SOLVENTS & CHEMICALS COMPANY — GRAND RAPIDS — 1500 Century Ave., S.W.—Grand Rapids 5-9111

sol," a widely known household and institutional disinfectant.

—— ★ ——

New Fritzsche Catalog

The issuance of its latest 12-page catalog and price list of essential oils, aromatic chemicals, flavors and related materials was announced recently by Fritzsche Brothers, Inc., New York. The catalog, which became effective Oct. 1, is available to wholesale quantity buyers by writing the company at 76 Ninth Ave., New York 11, N. Y.

DISINFECTANTS

(*From Page* 139)

sistance in this regard.

One final point should be made in regard to the major source of error in the method. Failure to intermix all portions of the dried film containing organisms with the added disinfectant will result in large numbers of survivors being recovered. It is imperative that the mixing be performed properly.

6. *Final Comments:*

THE above represents a brief summary of the basic, preliminary work performed on developing this test performance method. Not all of the work has been detailed here. Nevertheless, it is felt that this report is a significant resume of the development of certain salient points in the test procedure which have been a subject of past discussion. Comments on any portion of the work reported here or elsewhere will be sincerely welcomed.

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FLOOR CLEANERS

(*From Page* 129)

action on waxes. The amines also have a buffering action on alkaline builders and thus tend to reduce any deleterious effect of the cleaner on floor surfaces and irritation to the

skin of the user. Ease of preparation is another advantage of amine soaps, since they can be formed by simply stirring the ingredients together at room temperature. All of the test formulations are made by mixing the oleic acid and non-ionic dispersant, then adding the amine and stirring to form a clear solution. The builders and sequestering agent are dissolved in water and this solution is then stirred into the amine soap solution.

Either soda ash or trisodium phosphate can be used in combination with triethanolamine soaps, but a coupling agent is required if soda ash is used with monoethanolamine soaps. Higher concentrations of sequestering agent are required where soda ash is used, if clarity is to be maintained in hard water dilutions of the concentrate. The polyphosphates are considerably less soluble than trisodium phosphate in these concentrates and hence are not particularly effective for this service.

Of the formulations tested, Numbers 1, 2, and 4 were at least as effective as the best commercial products evaluated. To our knowledge, no standard sample formulation has as yet been approved under proposed Federal Specification P-R-00201 (GSA-FSS) so comparison with a standard was not possible. It is doubtful, however, that any of these formulations will meet the performance requirements of section 4 of the proposed specification.

The surface active agent "Tergitol"* non-ionic NPX, in addition to conferring the desired penetrating and dispersing actions to the product, also acts as an effective coupling agent to produce a clear concentrate.

Less sequestering agent is required in Formula No. 3 because the monoethanolamine soaps show less tendency to form lime soaps in hard water than do the triethanolamine soaps. Formula No. 4, with a higher concentration of monoethanolamine soap, should require no sequestering agent.

The terms "Tergitol" and "Cellosize" are registered trademarks of Union Carbide and Carbon Corp.

TABLE I
Suggested Formulations

	Parts by Weight			
	No. 1	**No. 2**	**No. 3**	**No. 4**
Oleic acid	14	14	14	20
"Tergitol" non-ionic NPX	10	5	10	5
Triethanolamine	7	12	—	—
Monoethanolamine	—	—	4	10
Trisodium phosphate	—	—	10	10
Sodium carbonate	10	10	—	—
Sequestering agent	2	2	1	—
Water	57	57	61	55

Comparative tests of these formulations were made with three wax removers now available on the market. Table II compares these formulations as to viscosity and pH of solutions. The buffering action of the amine soaps is apparent in the narrow pH range for Formulas 1, 2, 3, and 4; also note the excellent viscosity of numbers 3 and 4 without thickeners. Dilution tests with distilled and hard water showed that only one of the three commercial products forms a clear solution in either distilled or hard water, so only this one would pass the hard water dilution test of the proposed Federal Specification.

Wax removal tests were conducted with all seven cleaners on morpholineoleate emulsified carnauba wax films which had been aged for periods varying from one week to several years. The tests were conducted with five per cent and 10 per cent solutions of the concentrates in warm water, which were allowed to remain on the test panels for five minutes. The panels were then scrubbed with fine steel wool and rinsed. Wax removal was evaluated according to the methods set forth in the proposed Federal Specification, by buffing to determine gloss and by swabbing with a damp cloth to observe wettability of the surface.

Results of the Tests

IT was noted that although none of these formulations gave easy removal of the wax films, two applications of a five per cent solution produced better results than a single application of a 10 per cent solution.

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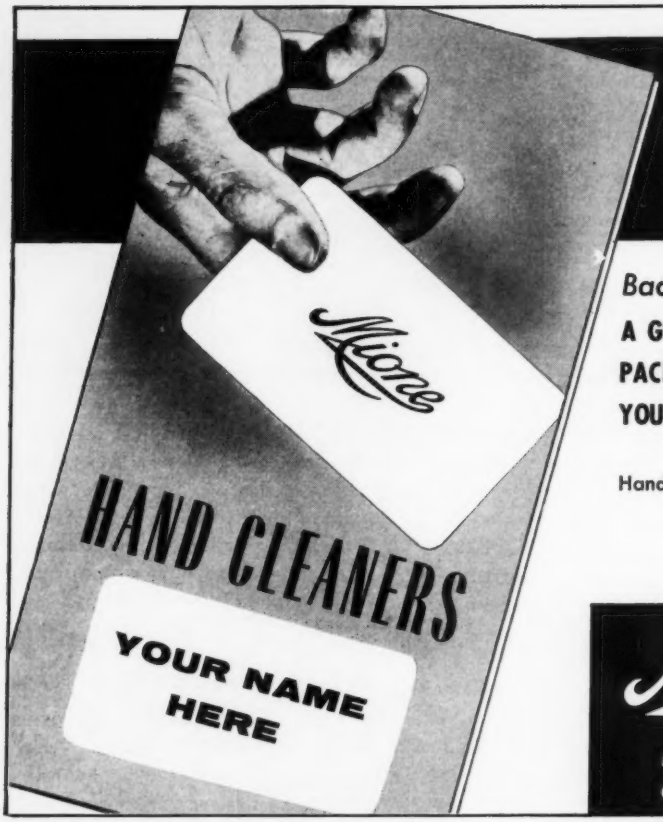
(2) H. W. Zussman and R. L. Bernstein, "Some Aspects of Dry Cleaning Detergency" (1950 Meeting, ACS Div. of Colloid Chemistry)

(3) S. R. Ramachandran, I. S. Uppal, and K. Venkotaraman, "Wetting Agents in Textile Processing, Part III — Calcium Soap Dispersing Power" *J. Soc. Dyers and Colourists*, November, 1938.

TABLE II

	pH 5% solution in Distilled Water	**Viscosity in Seconds***
No. 1	9.8	13
No. 2	9.8	17
No. 3	9.7	48
No. 4	10.0	49
Product A	10.9	32
Product B	9.5	10
Product C	10.3	8

*Viscosity measured by time in seconds to drain from filled 10 ml. pipette through large aperture.



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YOUR IMPRINT "UP FRONT" ON MIONE SALES HELPS

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Handsome Jobber Discounts Repeat Business

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HAAG
Liquid Self-Polishing
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HAAG
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These HIGH QUALITY, CARNAUBA BASE waxes, combined with our diversified line of LIQUID FLOOR SOAPS and CLEANERS, offer Jobbers

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VEGETABLE OIL JELLY SOAPS • HOSPITAL SOAPS • LIQUID TOILET SOAPS
PINE OIL DISINFECTANTS, ETC.

Write for Samples, Price List and Catalogue Sheets

HAAG LABORATORIES, INC.
14006 SEELEY AVE., P.O. BOX 114, BLUE ISLAND, ILL.

Aerosol Growth Told at Chemical Exposition

AEROSOL sales are headed for a tremendous expansion in the near future, H. W. Hamilton, secretary of the Chemical Specialties Manufacturers Association, asserted in an address at the 8th National Chemical Exposition, held in Chicago, Oct. 12 to 15. As yet, Mr. Hamilton said, the surface of the potential market has "barely been scratched." How far the expansion will grow, saleswise, he added, "is anybody's guess."

Production of aerosols this year, he continued, will reach 200 million units, this being a jump from the 140 million units sold in 1953. Retail value of last year's production was around $160 millions, while retail value of the 1954 volume will be "about $220 millions," he estimated. More than 60 different types of products, he reported, are now packaged in pressurized containers for self-spraying. Among them he mentioned shaving creams, deodorants, insecticides, home cleaners, rust preventers, paints and food products.

Mr. Hamilton spoke at an all-day symposium, Oct. 13, sponsored by the Manufacturing Chemists Association, which considered chemical packaging and labeling, the economics of chemical transportation and technological developments of the smaller bulk containers. Exposition marketing was the subject of another symposium the previous day, sponsored by the Chemical Market Research Association.

Transportation of chemicals by tank truck has grown some 400 per cent, W. E Morgan, assistant traffic manager, Union Carbide & Carbon Corp., New York, stated in discussing this phase of distribution in the chemical industry. In 1951, he said, 15,546 "for hire" tank trucks, with a standing capacity of 82,880,000 gallons, were in use. Average tank size was 4,500 gallons, an increase from the 3,000 gallons prevailing 10 years earlier, in 1941.

In the session on "Precautionary Labeling of Hazardous Materials," R. D. Minteer of Monsanto Chemical Co., St. Louis, said the chemical industry's uniform labeling regulations have, since 1949, become a part of the regulations of five states and the territory of Hawaii.

The Labeling and Precautionary Information committee of the Manufacturing Chemists Association, Mr. Minteer said, is available to assist cities and states in drafting labeling codes. It is also cooperating with the Chemical Specialties Manufacturers Association in working on labeling of household products. The most important unsolved problem, he declared, is to educate the public to read warning labels. A formal program to this end is to get under way shortly, it was announced.

In the symposium on "Exposition Marketing," E. P. Sutorius, vice president, Gardner Display Co., declared that many exhibits seen at trade shows and expositions "fall short of the desirable." "Sometimes," he said, "the displays are overpowering and the merchandising story is lost. Sometimes they fail to capitalize on the 'what's new' approach. Sometimes they utilize crowd-gathering gimmicks which have no relation to the products shown." Successful exhibitors, he said, recognize that they are host to the buyer and provide in the exhibit a pleasing background to their merchandising story. "Here they have an opportunity," he said, "to teach their product's advantages to a buyer who is relaxed and attentive."

H. E. Robinson, director of research for Swift & Co., Chicago, called exposition marketing a sort of "showcase promotion." He ranked it as "the best selling method" with results beneficial to both seller and buyer.

Frank F. McKenney, sales manager, chemical dept., Quaker Oats Co., Minneapolis, on the other hand, contended that trade shows are only one of many tools available for promotional work. He mentioned advertising, direct mail, sampling, demonstrations, among others.

"Frequently," he said, "the success of one promotional tool depends on the use with it of another of these tools. This synergistic effect has been the key to success of many of today's large, successful enterprises."

Development from a petroleum base of detergents, insecticides and other chemical products for everyday living, received due attention in an extensive exhibit of petrochemicals, contributed to the Chicago exposition by 23 leading companies in the petrochemical field.

Another popular educational feature of the exposition was the "Chemical Trail Blazers" exhibit which offers opportunity for any chemist with a new idea, new material, new device or method to put his still undeveloped idea before the public. In the last five shows, 25 per cent of the "trail blazer" ideas, exhibited as new at the time, have gone on to become important chemical ideas or processes, the exposition management has made known.

Of interest to specialties makers was one panel of this year's exhibit presenting a new test tube method for studying the effect upon the skin of dermatological and cosmetic preparations. It came from a University of Pennsylvania specialist in dermatology and syphilology, Peter Flesch. Three Yale University chemists submitted an exhibit dealing with new knowledge they have developed about electron exchange polymers.

From General Electric research laboratories came another development for toughening polyethylene plastic by irradiation, which enables bottles and dishes of this material to retain their shape during sterilization. This, it was claimed, will permit packaging of a wide variety of chemical products

(*Turn to Page* 160)

APPROVED

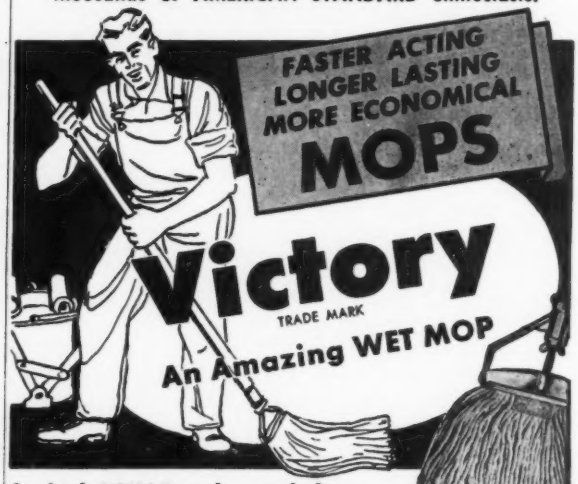
FRANKLIN'S CLEANER . . . for cleaning, stripping and maintaining all floors. A liquid wax soap that seals as it cleans. Highly concentrated . . . one gallon makes up to 40 gallons of fast acting cleaning solution. Cleans by saturation . . . no hard scrubbing.

FRANKLIN'S WAX . . . a tough, long wearing, self-polishing wax. Cuts maintenance costs on linoleum, rubber, asphalt tile, wood, etc. Withstands water and damp mopping indefinitely. Classified by Underwriters' Laboratories as anti-slip.

A COMPLETE LINE OF FLOOR MAINTENANCE MATERIALS AVAILABLE UNDER YOUR OWN LABEL . . . sales assistance and prompt delivery of materials are assured by Franklin factory representatives, offices and warehouses located in principal cities from coast to coast.

Thousands of Maintenance Managers

use AMERICAN STANDARD man-sized wet-mops, sweep mops and applicators exclusively. The nation's most successful distributors regularly supply those thousands of AMERICAN STANDARD enthusiasts.



for both ROUGH and smooth floors

For years the VICTORY Wet Mop has been our biggest seller. Thousands of maintenance men use VICTORY wet mops exclusively! Heavy-duty, quality yarn . . Your best bet, if you want a mop of extraordinary durability, performance and economy.

"BIG X" SWEEP MOP

This sweep mop is our leader. Snatches up dust on contact. It's nationally famous. A durable giant—available in widths up to 5 feet! Can be removed from the block for washing Once you try BIG X, you'll use no other.

HOLZ-EM APPLICATOR

You'll enjoy the fast, thorough performance of this luxurious, high-speed applicator. Reduces cost of applying wax, seals, varnish, etc. More professional floor finishers use HOLZ-EM than any other applicator

Jobbers

Complete catalog of our nationally-advertised mops, applicators, dusters, mitts, and custom-made items, on request.

"TOPS IN MOPS"

AMERICAN STANDARD MFG. COMPANY

Incorporated 1908

CHARLES E. KREBS and WALTER O. KREBS

2515 S. GREEN STREET • CHICAGO 8, ILL.

News

Sharp Joins Prentiss

Robert D. Sharp, formerly southwestern sales manager for John Powell & Co., New York, re-

Robert D. Sharp

cently joined Prentiss Drug & Chemical Co., New York, as assistant to John R. Stoddard, vice-president in charge of sales of insecticides and other agricultural chemicals. Mr. Sharp is making his headquarters in the New York office of Prentiss.

A graduate of Purdue University, where he received a B.S. degree in entomology in 1950, Mr. Sharp joined the Powell technical service department shortly thereafter. He was named head of the company's entomological section in 1951, was appointed northeastern sales manager in 1952, and was transferred to the southwest the following year.

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Freudenthal Visits Europe

Bernard R. Freudenthal, head of Chemical Service of Baltimore, recently returned from an extensive trip to Europe. Mr. Freudenthal visited England, France, Italy and Spain. While in those countries he discussed the distribution and application of sanitary supplies with representatives of the industry. The pattern of distribution and use of sanitary supplies in Europe is considerably different from that of the United States, but Europeans have the same worries in maintenance that we do, according to Mr. Freudenthal. In general, sanitation in Europe is not given as much consideration as it is in the U. S., he says. However, one exception to this, according to Mr. Freudenthal, is Vatican City, which in addition to its beauty is so spotlessly clean that it is hard to believe that hundreds of thousands of people visit it annually.

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Geraci Gallowhur VP

John Geraci, formerly plant manager of Gallowhur Chemical Corp., New York, has been appointed vice president in charge of production and development, it was announced recently by George Gallowhur, the firm's president. A graduate of New York University, Mr. Geraci was associated with Calco Chemical Co., Bound Brook, N. J., and with Sterone Corp. before joining Gallowhur in 1952. He makes his headquarters at the company's plant in Ossining, N. J.

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New Leedsall Catalog

Publication of its new catalog of sanitary chemicals and janitors' supplies was announced recently by J. G. Buttner, Jr., secretary of Leedsall Chemical Co., Baltimore. Illustrated and described in the new 40-page booklet are floor products, disinfectants, insecticides, liquid and bar soaps, dishwashing compounds, polishes, floor machines, mopping equipment, brushes, metal cans and paper products.

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Johnson Advances Keland

The appointment of Willard H. Keland as assistant to R. P. Gardiner, vice-president in charge of production for S. C. Johnson & Son, Inc., Racine, Wis., was announced recently. For the past three years Mr. Keland has been assistant to the international division manager of Johnson.

A native of Racine, and a graduate of Washington & Lee University, Mr. Keland obtained his masters degree in business administration from the University of Chicago in 1950. He joined Johnson's international division shortly thereafter.

Willard H. Keland

'55 Legislative Meetings

Forty-four state legislatures, plus the Congress of the United States, are scheduled to meet next year beginning on Jan. 3, 1955. Congress convenes on Jan. 3, 1955, which also marks the beginning of several of the state legislative sessions. Legislation dealing with taxation and other control measures is expected to be taken up in many of the states.

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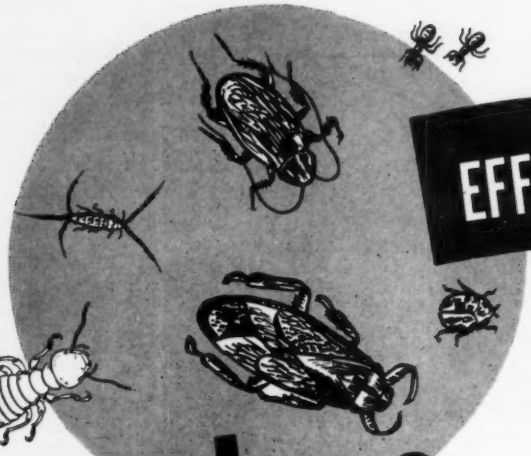
National Labs. Expand

The completion of an addition to its facilities at a total cost of $125,000 was announced recently by L. C. Van Nest, president of National Laboratories, Inc., Toledo, O. The additional facilities include greater plant space, new manufacturing equipment and additional office space. A portion of this expansion has been made necessary by the addition of floor wax to its line of chemical specialties, according to Mr. Van Nest.

The company also announced it was increasing the number of sales representatives working out of its six regional offices to 100. Additional personnel has also been added at the plant and office at the



for the

EFFECTIVE CONTROL

of Roaches, Ants, Waterbugs, Silverfish, Carpet Beetles,

and certain other household pests

Chlordane

"Apply it early"

Control of persistent household and institutional insect pests depends on use of an insect toxicant consistent in performance, high in initial kill and with long residual action.

Because chlordane delivers this all-over effectiveness, millions, worldwide, prefer it as the insecticide with the bigger payoff.

Write for complete technical information.

PETROLEUM DERIVED CHEMICALS — VELSICOL — SERVING BASIC INDUSTRIES

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330 E. Grand Ave., Chicago 11, Ill.

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TRIO CHEMICAL WORKS, INC.

the House of SANITATION CHEMICALS

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PRIVATE LABELING

FREE WAX SCOOP

A SPECIALLY DESIGNED PADDLE FOR SCOOPING PASTE WAXES FROM CANS

TRI-O-GLOSS Waterproof PASTE WAX

Now comes that new quality kind of paste wax that dry cleans, polishes, and protects as it waxes wood and linoleum floors. All in a single toil-free operation! TRI - O - GLOSS Paste Wax is manufactured from the finest waxes available . . . buffs to a brilliant hard dry finish . . . Won't mar, scratch, or crack off — spreads evenly and smoothly. Surfaces polished with TRI-O-GLOSS "shine on" indefinitely even when exposed to heavy traffic.

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TRIO CHEMICAL WORKS, INC.
BROOKLYN 6, N. Y. DEPT. N-11

Gentlemen:

- ☐ Please send free catalog
- ☐ Please forward latest price list
- ☐ Free wax scoop for paste wax

Name .....

Address .....

City ..... State .....

TRIO CHEMICAL WORKS, INC.
341 SCHOLES STREET • BROOKLYN 6, N. Y.

company's headquarters in Toledo. Sales volume this year is said to be running 20 percent ahead of the 1953 total.

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CSMA Proceedings

The proceedings of the 40th mid-year meeting of the Chemical Specialties Manufacturers Association have just been issued, it was announced by H. W. Hamilton, secretary. In addition to papers and panel discussions presented during the 40th mid-year meeting in Cincinnati, May 24 and 25, the proceedings also contain reports of various committees made at the meeting. A list of members, associate and honorary members of C.S.M.A. is also included in the 146 plus X page book. The cost of individual copies of the proceedings is $7.50, postpaid U. S.; $8.00, foreign. Everyone who registered for the 40th mid-year meeting receives a free copy as do member firms. Copies may be secured from the new offices of the Chemical Specialties Manufacturers Association at 50 E. 41st Street, New York 17, N. Y.

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Janitors Supply Catalog

Distribution of its new 200 page catalog is now under way it was announced recently by Janitors Supply House, Inc., Baltimore. The catalog lists the firm's full line of sanitary supplies, equipment and dispensing machines, and is the largest one issued by the firm.

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Ladley Hercules P.A.

The appointment of Edwin S. Ladley as director of purchases for Hercules Powder Co., Wilmington, Del., was announced recently. He succeeds Lawrence J. Finnan, Jr., who retires at the end of the year upon completion of 40 years of service. Mr. Finnan continues in an advisory capacity with Mr. Ladley until Dec. 31.

Mr. Ladley has been assistant director of purchases since 1951. He is succeeded in that position by William A. Hoffman, Jr., who joined Hercules in 1940. In 1946, he was transferred to the purchasing department and in 1950 was named a senior buyer.

Completed $125,000 expansion of National Laboratories, Inc., Toledo, is shown in extreme left portion of photograph.

The new director of purchases for Hercules joined the firm in 1942 as a clerk in the secretary's office. Later that same year he was transferred to the purchasing department where he handled priorities details. In 1944, he was named a buyer in the department.

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Lien Chemical Changes

A number of changes in personnel of Lien Chemical Co., Franklin Park, Ill., were announced recently by Carl B. Lien, president.

Albert E. Stahnke, formerly general purchasing agent, has been advanced to the post of sales manager of the newly created wholesale division. Succeeding Mr. Stahnke as general purchasing agent is Noel S. O'Reilly, formerly warehouse manager.

Charles A. Krauss has been advanced from the post of shipping and receiving clerk to warehouse manager.

Donald L. Brook, formerly vice-president and comptroller of Lien, has resigned and accepted the presidency of E. G. Davidson Co., Chicago.

—— ★ ——

Minnig Witco V.P.

Max A. Minnig has been elected executive vice-president of Witco Chemical Co., New York, it was announced recently. Joining Witco's natural gas division in 1946, Mr. Minnig successively has been national sales manager for rubber chemicals, director of sales and vice-president. He was educated at the University of Oklahoma.

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New Gulf Automotive Lab.

A 47,000 square foot automotive laboratory, which will include a maintenance wing of 10 rooms for the study of engine cleaning and car maintenance, will be built as part of a $2,400,000 expansion project at the Harmarville, Pa., laboratories of Gulf Research & Development Co., Pittsburgh, Pa. Two new buildings and additions to a tank farm and power house will be erected at the Gulf laboratories to expand its already substantial facilities for research in fuels and lubricants.

The main new structure, to which the others are auxiliary, is the automotive laboratory. Its design calls for a 243 foot long, two-story front, from which three one story wings, one at each end and one at the center, will extend rearward. In constructing the smallest of the wings, use will be made of an existing laboratory. The maintenance wing, which contains 10 rooms, will be used for engine cleaning, car maintenance, etc. The engine cleaning room will contain three benches for spraying engine parts and four vats for washing in different solutions. All have separate exhaust hoods over them and are protected against fire by a carbon dioxide system.

Dr. Klarmann a Lecturer

Dr. Emil G. Klarmann, vice-president and manager of technical service of Lehn & Fink Products Corp., New York, and first vice-president of the Chemical Specialties Manufacturers Association, has been appointed lecturer in the department of dermatology and syphilology of the New York University Postgraduate School of Medicine, it was announced in mid-October.

On Dec. 10, 1953 Dr. Klarmann received the 1953 medal award for outstanding contributions to the art and science of cosmetics of the Society of Cosmetic Chemists.

Dr. Klarmann is a graduate of the Technological Institute of Bruenn and of the University of Halle a. S., Germany. He is a past president of the Society of Cosmetic Chemists, and served as chairman of the administrative committee of the Disinfectant and Sanitizers Division of the Chemical Specialties Manufacturers Assn. and also repeatedly chairman of its Disinfectant Scientific Committee.

E. G. Klarmann

WAXES

Importers and Refiners

CARNAUBA - OURICURY - CANDELILLA

Crude - Refined - Bleached - Flaked - Powdered

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MAMARONECK REFINED BRAND

Vegetable Waxes

CERESINS - OZOKERITES
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INDUSTRIAL WAXES

Compounds and blends made to your specifications

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Mamaroneck 9-4746 • Cable MARGUESO
Refinery: Mamaroneck Chemical Div., Mamaroneck, N.Y.

CERITA WAXES

M. ARGÜESO & CO. INC.
Established 1908

Aerosol Growth

(*From Page* 155)

in polyethylene containers.

A Rutgers University chemist, Ulrich P. Strauss, submitted a panel on "Polysoaps," about which the explanatory label said: "Polysoaps are polymers to whose chain structure soap or other detergent molecules are attached. The exhibit sketched their preparation, structure and behavior in comparison with ordinary soaps and treated several special properties of polysoaps."

The Glycerine Producers Association explained in a panel a new technique involving use of glycerol solutions as a protective media during freezing and thawing of living cells. From this low temperature approach to storage of living cells in products of the soap kettle, the possibility is foreseen of developing a "bank" of red blood cells for war emergencies.

More than 200 manufacturers of raw materials, processing equipment, accessories and supplies for production of chemical products offered their wares and services in the exposition area at the huge Chicago Coliseum. Many new products of direct interest to manufacturers of soaps, detergents and chemical specialties were shown.

Harold L. Danziger

New Hollingshead Mgr.

Harold L. Danziger, formerly manager of the special brands division, has been advanced to the post of group manager in charge of the automotive, special brands and universal divisions of R. M. Hollingshead Corp., Camden, N. J., it was announced recently by Wilbur H. Norton, president.

Mr. Danziger joined Hollingshead in 1946 as a district manager of the automotive division and later was named assistant sales manager of the division. In 1950 he was appointed account manager in the special brands division and in 1952 was promoted to manager of the special brands division.

In his new capacity he is responsible for the general management of all activities of the three divisions.

—★—

New Fly Spray Standard

The printed edition of Household Insecticide (Liquid Space Spray Type for Flying Insects) (Second Edition), Commercial Standard CS72-54, has been issued by the Commodity Standards Division of the U. S. Department of Commerce. Copies may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 10 cents each.

This edition of the Commercial Standard is a revision of the previous edition issued in 1938. The revision was proposed by the Chemical Specialties Manufacturers Association and its adoption was recommended by a standing committee of the industry composed of representative producers, distributors, and users of insecticides. The standard covers methods of test, biological, physical and chemical properties, and certification of quality of liquid space spray type household insecticide. Such sprays contain one or more insecticidal ingredients dissolved in fly spray base oils suitable for household and industrial use. The standard became effective September 25, 1954.

—★—

Insecticide Manual

A new edition of the insecticide formulator's manual is now available as technical bulletin No. 42, it was announced recently by Emulsol Corp., Chicago. Formulation suggestions for many of the newer pesticides, as well as the established ones are included in the newest version of the booklet.

VULCAN Pails and Drums Insure Fullest Measure of Quality and Service

Your pail and drum needs can be solved quickly and easily by Vulcan Steel Container Company.

Leading chemical manufacturers and processors throughout the South depend upon Vulcan for:

- **QUALITY PAILS AND DRUMS in a wide range of sizes and styles (1 to 8 gallons), fully complying with all standard specifications.**
- **RELIABLE SOURCE OF SUPPLY (Vulcan's production lines are geared to turn out any order — large or small).**
- **FAST PERSONALIZED SERVICE (Your order receives quick, accurate attention).**

Both Open Head Lug-Cover Pails and Closed Head Drum type are available, furnished with plain cover, or with any of the popular pouring openings.

In addition to all regular linings, Vulcan produces Hi-Baked Interior Linings and those famous special linings for "hard-to-hold" chemicals.

Vulcan Pails and Drums can be finished with colorful lithographed trade marks and designs forcefully reproduced.

● **Samples and prices gladly furnished**

"A Southern Company Serving Southern Industry"

VULCAN STEEL CONTAINER CO.

Main Office and Factory

3315 N. 35th Ave. ● (P. O. Box 786)
BIRMINGHAM ● ALABAMA

HIGH SPEED

DELIVERY SERVICE

from

NAMICO

SOAPS and DETERGENTS

"SINCE 1896"

YOU can get quick deliveries of the following items because NAMICO carries large inventories.

I. FLAKES—POWDERS—COMPOUNDS.
Soaps for commercial laundries, institutional laundries, hospitals, and self service laundries.

II. SYNTHETIC DETERGENTS.
A broad line of compounded products for many uses.

III. SOAP POWDERS & LIQUIDS.
For maintenance use.

IV. DISH WASHING COMPOUNDS.
A complete line of sudzing and non-sudzing detergents for machine and hand use.

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SALES AND REPEAT SALES OF THESE QUALITY PRODUCTS WILL BUILD UP YOUR VOLUME—OPEN NEW MARKETS —HELP YOU MAKE "EXTRA PROFITS"

— 0 —

NATIONAL MILLING & CHEMICAL CO.

PHILADELPHIA 27, PA.

WHY polish profits climb when you specify DUROXON J-324

From the report of a Nationally Famous Independent Laboratory:

"Duroxon J-324 wax is an excellent product for use in the wax polish art.

We note particularly the excellent emulsifiability of the wax and the fact that preparations can be made with approximately 40% of the soap content generally used to emulsify other waxes. It has a high degree of soiling and scuffing resistance which reflects a tough, hard film."

Get complete information on this superior Hard-Wax today!

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Please send me sample, and laboratory report of DUROXON J-324.

NAME .....

STREET .....

CITY .....

(Please attach coupon to your letterhead)

New "Freon" Sales Units

Opening of district offices in Chicago and Los Angeles to handle sales of "Freon" aerosol propellents and refrigerants was announced recently by Kinetic Chemicals Division, E. I. du Pont de Nemours & Co., Wilmington, Del. Both new offices are located in existing district office quarters of the firm's organic chemicals department.

Norman W. Kent, recently transferred from the petroleum chemicals division, has been named sales supervisor of the Chicago office under the direction of J. A. Turner, district manager of the organic chemicals department. No sales supervisor has been named as yet for the Los Angeles office which is under the direction of A. J. Mease, district manager of the organic chemicals department.

Severn T. Wallis has been named sales correspondent at the Chicago office. With du Pont since 1937, he had been sales correspondent in the Wilmington office of the Kinetic Chemicals Division for the last year. He is succeeded by William F. Kelly, who had been general supervisor of the order and clerical section.

Other divisional personnel changes announced at the same time include: C. Earle Kimble, with du Pont since 1932, previously propellent sales representative in the Wilmington area, to Bridgeport, Conn., as propellent sales representative in the New York City and New England areas; Douglas H. McKenna, sales trainee in the Wilmington office, and Frank W. Blodgett, chemist at the firm's Jackson laboratory, to the Kinetic Chemicals Division sales service laboratory, Chambers Works, Deepwater, N. J.

New aerosol purse-size perfume atomizer of Parfums Corday, New York, is being filled by Regal Chemical Corp., Brooklyn. Unit is claimed to be spill- and leak-proof.

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Metal Test Strips

Metal test coupons for corrosion testing of hydraulic brake fluids as required by the Society of Automotive Engineers' specifications are now available from the Chemical Specialties Manufacturers Association to its members at prices that will liquidate costs. These coupons will come in sets of six different metals, useful for other corrosion tests. CSMA is mailing order forms to its members, indicating present and future estimated requirements.

EXTRA!! LABOR COSTS HIT NEW HIGH!

Use this FACT to obtain new customers by selling them fabulous NON-SKUFF FLOOR WAX. When using this wax, the resulting high gloss eliminates the need for initial buffing. The resistance of this wax to scuffing and dirt retention cuts floor maintainance costs in half.

IT COSTS YOUR CUSTOMER MONEY NOT TO USE IT!

- EXTRA HIGH GLOSS
- SCUFF RESISTANT
- MIRACULOUS LEVELING PROPERTIES
- LOW DIRT RETENTION
- WATER AND SLIP RESISTANT
- LIGHT IN COLOR
- NOT HARMED BY FREEZING
- DOES NOT DARKEN, OXIDIZE OR POWDER

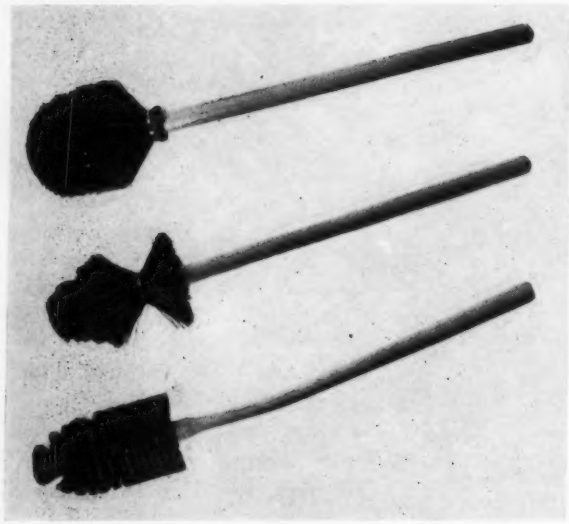
Uncle Sam's
NON-SKUFF
•
FLOOR WAX

WRITE FOR OUR DESCRIPTIVE CATALOGUE NO. 6 AND PRICE LIST

UNCLE SAM CHEMICAL CO., Inc.
575 WEST 131st ST. Est. 1920 NEW YORK 27, N. Y.

Now Available! Your Private Label On Attractive Lithographed Can.

Superior spiral wound
SANITARY BRUSHES are MORAN MADE



The most complete line of sanitary brushes available:

- Brush heads made of finest materials HORSEHAIR, NYLON, BRISTLE, PLASTIC, FIBRE
- Long life guaranteed under rough, frequent usage
- Spiral winding — by skilled workers — locks brush heads securely to smoothly finished hardwood handles
- No loose or dangling bristles, ever!

COMPLETE CUSTOMER SATISFACTION GUARANTEED

Write to Dept. M 11 for our new 1955 Catalog

MORAN BRUSH MANUFACTURING COMPANY

30 MANILA AVENUE P. O. BOX 305
HAMDEN, CONN.

"Quality Brushes Since 1869"

AEROSOL-TESTED PERFUME CONCENTRATES

Aerosol-dispensed cosmetics are rapidly increasing in volume.

To meet this demand, S. B. Penick has been systematically submitting each of its perfume compounds to aerosol dispensing tests, in our own research laboratories.

Special testing equipment and a complete familiarity with the techniques involved place Penick in a unique position to supply a widely diversified line of perfume specialties for all types of cosmetics to be aerosol-dispensed.

FOR SAMPLES, WRITE DEPARTMENT 8

S. B. PENICK & COMPANY

DISTILLERS OF RARE AND QUALITY ESSENTIAL OILS
MANUFACTURERS OF AROMATIC CHEMICALS

50 Church St., N. Y. 8, N. Y., Telephone COrtlandt 7-1970
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Calcium Hypochlorite
70% Granular

Conforms to United States Government Standards

Packed in 100 lb. & 50 kilo drums.

Immediate shipment from warehouse.

Correspondence Invited

ROSENTHAL BERCOW CO., INC

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23 EAST 26th STREET NEW YORK 10, N. Y.
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Distributors For
NIPPON SODA COMPANY, LTD., JAPAN

In Powr-Pak Posts

The appointment of Ernest A. Beck as a sales representative was announced recently by Powr-Pak Co., Bridgeport, Conn. At the same time Powr-Pak, packers of liquid and foam aerosol products for private label firms, announced that it had increased its production and warehousing facilities.

Ernest A. Beck

Previously Mr. Beck was president and treasurer of Saugatuck Instrument Co., Westport, Conn., from 1946 until 1954, when manufacturing operations were discontinued. During this period he handled product sales and subcontracting facilities in the New England and metropolitan New York areas. From 1931 to 1946 he was with Jetter and Scheerer Products, Inc., New York, as a surgical instrument sales representative. In 1942, he became vice-president and general manager in charge of sales and production.

Leonard S. Baer

The company also announced the appointment of Leonard S. Baer as sales manager. Previously for three years he was sales manager for General Merchandise of Bridgeport, and for two years held a similar post with Samuel J. Liftig, Inc., Ansonia, Conn.

Name Chicago Rep.

The appointment of Clarence Morgan, Inc., 325 N. Wells St., Chicago 10, as their representative for the sale of waxes in the Chicago area and adjacent territories, was announced recently by Strohmeyer & Arpe Co., New York. The appointment is part of the firm's expanded sales activitity on its line of all types of natural and synthetic waxes.

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Telephone Sanitizer

A disposable cloth wafer, impregnated with a germicide, for sanitizing and deodorizing telephone mouthpieces is being distributed by General Scientific Equipment Co., Philadelphia, it was announced recently. The cloth pads, which bear the trade name, "tel-O-cide," are packed in jars of 100. They are applied by wiping the mouth-piece of the telephone. Moisture from the pad dries quickly on the mouth piece, which requires no additional wiping.

A single jar of 100 pads retails for $1.39; a carton of one dozen jars is $15.00; two dozen are $13.80 per dozen; six or more dozen are $12.00 per dozen. Direct orders shipped immediately on open account from General Scientific Equipment Co., 27th and Huntingdon Sts., Philadelphia 32, Pa.

New "tel-O-cide" telephone mouthpiece sanitizers, which feature a germicide impregnated pad are being distributed by Scientific Equipment Co., Philadelphia. Pads, which come in jars of 100, are used to wipe off telephone mouthpieces.

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Diamond Names Castillo

The appointment of Fernando Castillo G-N as a technical service representative for herbicide distributors and customers of Diamond Alkali Inter-American Corp., subsidiary export firm of Diamond Alkali Co., Cleveland, was announced recently. Mr. Castillo, according to S. S. Savage, president of the export firm, is serving as a consultant to Carribean, Central and South American distributors and customers. An agronomist, Mr. Castillo will assist users in the application of Diamond chemicals for pest and weed control and crop protection problems.

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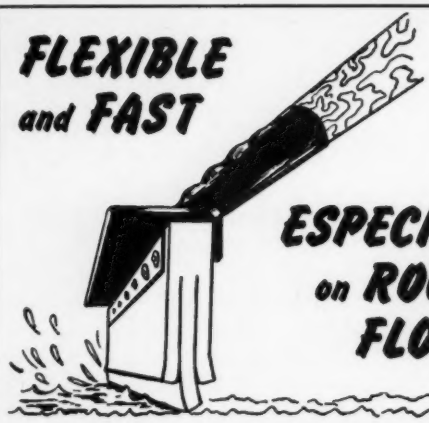
Bruce Joins Purex

Leslie C. Bruce, Jr., formerly account executive with Kastor, Farrell, Chesley & Clifford, Inc., New York advertising agency, recently joined Purex Corp., South Gate, Calif., as associate advertising manager. At one time, Mr. Bruce was account representative for the advertising of Colgate-Palmolive Co., Jersey City, N. J., at Sherman & Marquette Agency, which is now Bryan Houston, Inc., New York. He also worked on "Tide" advertising of Procter & Gamble Co., Cincinnati, for Benton & Bowles, Inc., New York.

FLEXIBLE and FAST



ESPECIALLY on ROUGH FLOORS

The Neoprene Split-Blade Squeegee

Saves valuable man hours spent cleaning rough, hard-to-dry concrete floors. The Neoprene split blade conforms to any kind of surface . . . won't "hop" or miss and it wears ruggedly through the hardest kind of use.

Easy on the back, easy on the pocketbook, it's particularly in demand by service stations, garages, industrial plants — any place where rough floors are a maintenance problem.

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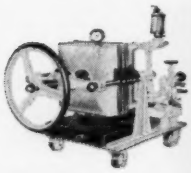

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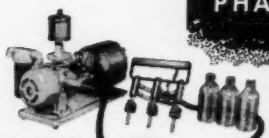

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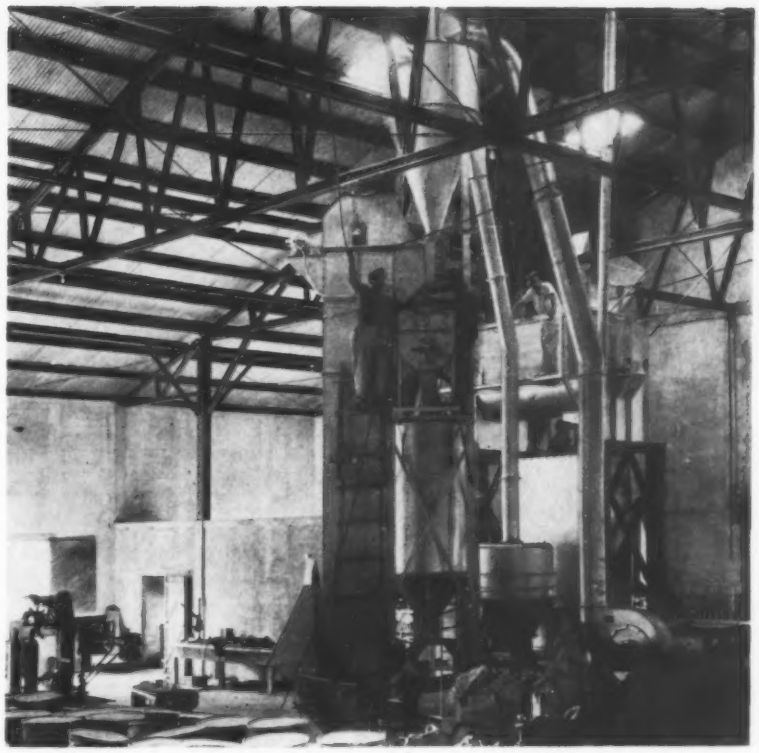
Nicaragua Insecticide Unit

An insecticide formulating plant capable of producing more than one million pounds of finished insecticides per month on an eight-hour-day basis went recently into production in Managua, Nicaragua, Central America. Engineered by Diamond Alkali Inter-American Corporation for Industries Quimico-Agricolas, the plant will satisfy more than half of the normal insecticide needs of the Nicaraguan republic.

Two Nicaraguan business men, Messrs. Tomas Wheelock and William Pfaeffle obtained credit from the National Bank of Nicaragua, and with the support of the administration of the republic, were able to secure the cooperation of Diamond Alkali in building the plant. By so doing it is claimed the plant will save on dollar exchange and strengthen the economy of the country.

Already two thirds of the plant's capacity has been sold for the coming season.



Some of the machinery installed by Diamond Alkali for the new plant of Industrias Quimico-Agricolas of Managua, Nicaragua. This new 12 million pound per year insecticide formulating plant will provide Nicaragua with more than half of its insecticide needs.

—— ★ ——

In Hercules Export Posts

Three new appointments in the export department of Hercules Powder Co., Wilmington, Del., were announced recently by David M. Houston, director of the export department.

William W. Delaney has been appointed manager of the eastern division; Joseph M. Carbonara, manager of the western hemisphere division; and Curtis M. Hinsley, supervisor, European division.

—— ★ ——

Johnson Research Grants

Grants totaling $6,500 to provide scholarships to undergraduate students majoring in chemistry have been made to five colleges by a foundation supported by S. C. Johnson & Son, Inc., Racine, Wis. The Johnson Foundation is a non-profit, philanthropic trust.

Scholarship grants of $1,000 each have been made to Hope College at Holland, Mich. and Calvin College at Grand Rapids, Mich. A grant of $1,500 went to the College of St. Thomas, St. Paul, Minn.

Teachers College of Columbia University, New York, received $2,000 for the L. Ray Balderston Fellowship Fund, the income to be used to attract graduate students for research on projects relating to housekeeping and maintenance work. A grant of $1,000 was made to Lawrence College, Appleton, Wis., to be used in chemical research.

During the past nine years, grants totaling nearly $100,000 have been made by the Johnson Foundation for graduate fellowships in the field of wax chemistry and technology.

—— ★ ——

Du Pont Names Wolf

The appointment of Dr. Dale E. Wolf as manager of the agricultural chemicals research section of the Grasselli Chemicals Department of E. I. du Pont de Nemours & Co., Wilmington, Del., was announced recently. He succeeds the late Dr. Harry F. Dietz, who died Sept. 4.

Dr. Wolf joined Du Pont early in 1950 as a research supervisor in weed control and since August, 1950, has been assistant manager of the agricultural chemicals research section, with headquarters at the company's Experimental Station in Wilmington.

A native of Kearney, Neb., Dr. Wolf was a student at the University of Nebraska when he entered the Army in World War II. He received the degree of bachelor of science in agronomy from the University of Nebraska in 1945. In 1949 he received his Ph.D. in farm crops from Rutgers University.

From 1949 to 1950 he was U. S. Department of Agriculture agent in agronomy at the experimental station at New Brunswick, N. J. During the last half of 1949 he was associate professor of farm crops at Rutgers.

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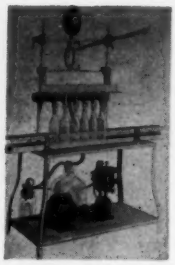

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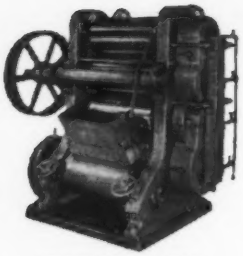

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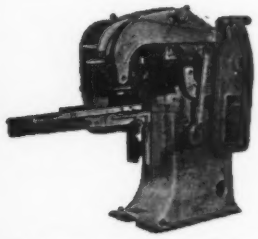

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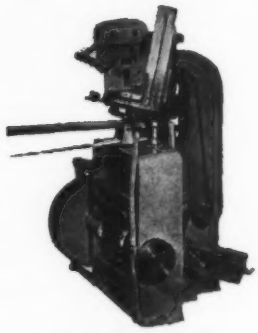

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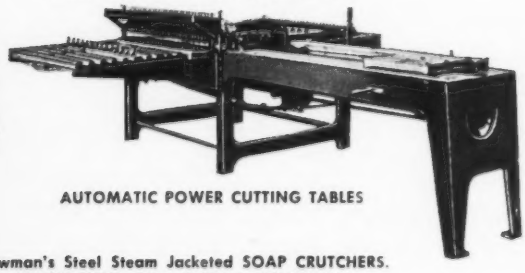

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(*Continued on Page* 173)

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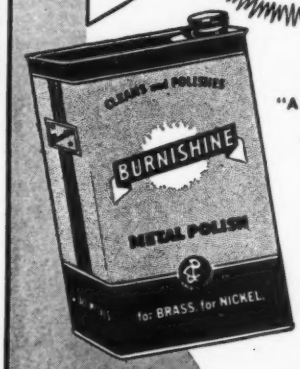

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See Page 26

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(*Continued on Page 175*)

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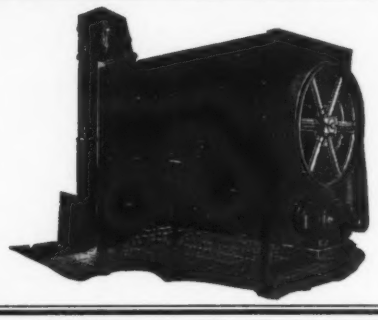

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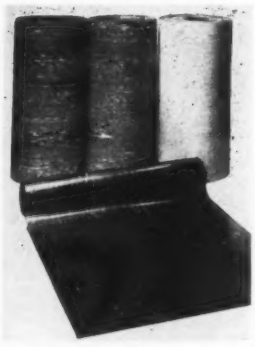

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Cusack To Food Machinery

Frank L. Cusack has been named assistant manager of export sales at the corporate export office, chemical divisions of Food Machinery & Chemical Corp., New York, it was announced recently by Robert R. Clark, manager of export sales. Previous to his appointment by FM&CC Mr. Cusack was associated with Enco Chemical Corp., New York, and prior to this, he served for many years with Westvaco Chemical Corp., New York.

—— ★ ——

Attend Shellac Meeting

Henry Blanchford, secretary of Mac Lac Co., New York, and Werner Kuebler, chief chemist of the Gillespie-Rogers-Pyatt Co., New York, represented the American Bleached Shellac Manufacturers Association and the United States Importers Association through the American Standards Association at the London meeting of the International Standards Organization-T.C. 50-Lac. Approximately 30 delegates from the United States, United Kingdom, France, India and Thailand attended the meeting held from October 18 to 20. International specifications on shellac, seed lac and bleached shellac were discussed at the meeting.

—— ★ ——

Jobber Sales Training Plan

Closer jobber - manufacturer cooperation for increased sales of cleaning soaps and waxes is the basis of a novel and nation-wide plan, set up by Davies-Young Soap Co., Dayton, O. The plan operates as follows: An experienced Davies-Young representative is appointed to work in a jobber's area. He familiarizes the jobber's salesmen with the manufacturer's products and methods of selling. Particular emphasis is placed on spot demonstrations.

The soap company also makes available to each dealer, without cost, the services of its national advertising agencies to aid in the preparation of direct mail advertising, and it sets list prices of products. After training the jobber's salesmen, the Davies-Young representative works closely with each salesman in making his calls and in demonstrations.

The jobber, in turn, agrees to cooperate fully with the Davies-Young representative and makes arrangements for each of his salesmen to work at least one full day with him. The jobber is responsible for making appointments for the demonstration day and opens his entire clientele to the representative. He agrees to keep an ample supply of Davies-Young products on hand.

The knowledge that demonstrations are the key to selling cleaning soaps and waxes and that many jobber salesmen would like to have additional help in demonstrations and closing sales has prompted the institution of this plan, according to Lou Pollock, sales promotion manager. He explained that much valuable selling information, accumulated at Davies-Young's home plant, will thus be made available to jobbers.

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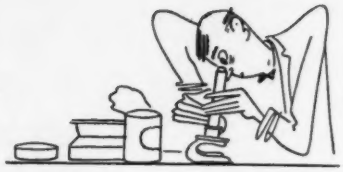

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STATEMENT OF OWNERSHIP

Statement required by the Act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 233) showing the ownership, management, and circulation of Soap & Chemical Specialties, published monthly at New York, N. Y., for October 1, 1954.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Mac Nair-Dorland Co., Inc., 254 West 31st St., New York 1, N. Y.; Editor, Frank J. Reilly, 254 West 31st St., New York 1, N. Y.; Managing Editor, Ira P. MacNair, 254 West 31st St., New York 1, N. Y.; Business Manager, Thomas Morgan, 254 West 31st St., New York 1, N. Y.

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.)

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3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. Paragraphs 2 and 3 include, in cases where the stockholders or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

signed IRA P. MAC NAIR, Publisher

Sworn to and subscribed before me this 20th day of August, 1954.

(SEAL) HARRIET LEVINE

(My commission expires March 30, 1956.)

Fairfield Chemical Assigns Three

William S. Wallace

George Kerbey

APPOINTMENTS to administrative sales posts in the headquarters office of Fairfield Chemical Division of Food Machinery and Chemical Corp., at 420 Lexington Ave., New York, were announced recently by John A. Rodda, sales manager of the new division.

All of the appointments made by Mr. Rodda are personnel retained from the insecticide division of U. S. Industrial Chemicals Co., a division of National Distillers Products Corp., New York, which was purchased by Food Machinery and became the Fairfield Chemical Division of FMC effective Sept. 1.

William S. Wallace, longtime employee of U. S. Industrial Chemicals, has been named office assistant to Mr. Rodda in the sales department. Mr. Wallace is a graduate of Yale University.

George Kerbey, who had been active for a number of years in the agricultural chemical field before joining U.S.I. five years ago, becomes Mr. Rodda's assistant in field sales operations.

The third appointment made by Mr. Rodda is that of John F. Odeneal, who is in charge of sales in the New York area. This area includes New England, and the states of New York and New Jersey. Mr. Odeneal was formerly in charge of insecticide sales of the New York office of U.S.I.

Russell B. Stoddard is manager of the Fairfield Chemical Division, with headquarters at 420 Lexington Ave., New York, in which office Mr. Rodda is located.

A giant, plastic illuminated globe of the world, largest of its kind, has been erected in a landscaped area near the administration building of S. C. Johnson & Son, Inc., in Racine, Wis. The globe, 35 feet in circumference, graphically symbolizes Johnson's present world-wide operations. It was inspired by Frank Lloyd Wright who designed Johnson's administration and research center, background.

William Blondheim, former superintendent of the Fairfield, Baltimore, Md., plant of U.S.I., is in charge of all plant operations of the Fairfield Chemical Division of Food Machinery, with headquarters in Baltimore.

When Food Machinery purchased the insecticide division of U.S.I., included were its laboratories and manufacturing facilities in the Fairfield industrial section of Baltimore. These were in addition to "Pyrenone" pyrethrum type insecticides and related products.

★

Johnson Shifts Kinsley

Joseph F. Kinsley, in charge of sales in the Pacific area since 1951 for S. C. Johnson & Son, Inc., Racine, Wis., was recently named to the company's newly created position of special representative in charge of federal government accounts, with headquarters in Washington, D. C.

Mr. Kinsley's former territory included Japan, Hawaii, the Philippines and other islands in the Pacific. He has been with S. C. Johnson since 1938.

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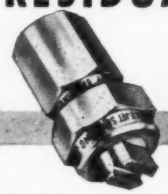

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Tale Ends

COME December 6 and the 41st annual conclave of the Chemical Specialties Manufacturers Assn. will gather in N. Y. It so happens, this year, that the opening day of the annual meeting composed mostly of committee, group and board meetings will not be held on a Sunday as in former years. December 6 is a Monday and the general meeting will open December 7, Tuesday, and close Wednesday evening, December 8 with the annual banquet and sprawl. Seems some CSMA members were fussy about having their week-end broken up.

* * * * *

Carl Lien, prez of Lien Chemical out in Franklin Park, Ill., is quoted in a recent NSSA bulletin as stating that on farms there are twice as many rats as people, in small towns it's one for one, and in large cities it's only one rat for every five people. Maybe our observations are inaccurate, but it has seemed to us in some cities that the proportion of rats was much higher than that figure. Probably just our imagination.

* * * * *

The package competition to be held in conjunction with the 1954 *Aerosol Festival at the CSMA meeting in New York will have a record-breaking entry list, according to Fred Lodes of Precision Valve, chairman of the committee. More classes with more entries in every class, plus greatly improved packages this year are going to make it tougher on the judges. There also will be foreign entries this year for the first time, including France and England.*

* * * * *

Mrs. Estelle Sullivan, executive secretary of the Chemical Specialties Manufacturers Assn. last month completed twenty years with CSMA. It was something of a dual celebration, she also having marked her twenty-fifth wedding anniversary at the same time. As the "Man Friday" to H. W. Hamilton, association secretary and major domo, these many years, she has seen the association almost quadruple in size since she joined up back in 1934.

* * * * *

Sonny Lawson, prez of Enterprise Paint Co. and its Federal Varnish Division, Chicago, now out of the clutches of the medical profession is back on the job with renewed wim and wigor.

* * * * *

Well, we did it again! (*Page* 177, *Oct.* 1954, *S. &CS.*) *The right name and the wrong fellow's picture. This time our victim was none other than Jack Vernon, prez of the Niagara Chemical Division of Food Machinery & Chemical who headquarters at Middleport, N. Y. On page 37 of this issue is a letter from Jack telling us that the supposed photo of one J. V. Vernon is that of the late J. Fred Schoellkopf, Jr., a former director of Niagara before its association with Food Machinery. Also elsewhere is a picture of J. Vernon which we hope this time is really J. Vernon. If not, there's liable to be hell to pay!*

So you think you have troubles? Well, how would you like to perform the work of art shown above as do the Japanese everytime they write the word "ant." Illustration above is from "Insect Fact and Folklore" by Lucy W. Clausen, copyright 1954 by The Macmillan Company. Reprinted by permission. Review appears on page 91, this issue.

* * * * *

In Cleveland, one of our spies tells us, there is a well-known sanitary supply house which sells not only a complete line of soaps, mops, brushes, waxes, et al, but in addition is local distributor for a very special brand of dill pickles. Also we hear of another janitor supply firm in Syracuse which sells olives and maraschino cherries. For the saloon trade, no doubt. We know what they use the cherries and olives for, but what kind of drink wears a dill pickle?

* * * * *

Lever Bros. Co. recently paid one Miss Mary McCrea over $75,000, *her "weight in gold," according to an AP dispatch from San Francisco for telling why she liked "Lux" or something. It's a lot of dough to be throwing around, even in these days. The AP report said: "She did it by writing a* 25*-word sentence which pleased the judges." We iiked that "which pleased the judges" part even though it does sound a little sour-grapey.*

YES, it's a tough uphill pull for your salesmen to get in and get an order when the buyer never heard of you or your products. Regular advertising is the best and quickest way to correct this situation. For example, if it be in the field of detergents and soaps, floor products, insecticides, disinfectants, aerosols, and other chemical specialties where you want your salesmen to sell faster, sell better, sell more, try regular advertising in

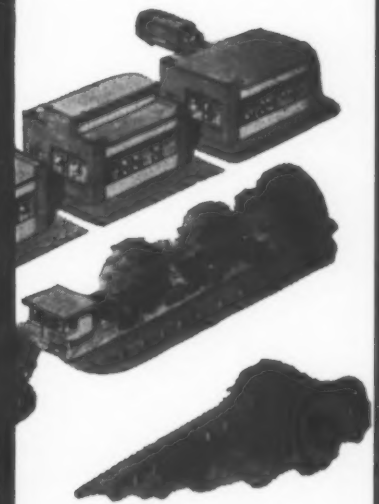
SOAP and Chemical Specialties
254 W. 31st Street, New York 1, N. Y.

the House of Ungerer

Essential Oils • Terpeneless Oils

Aromatic Chemicals • Oleoresins

True Fruit and Imitation Flavors



Ungerer & Co.

161 Avenue of the Americas • New York 13, N. Y.
Plant & Laboratories, Totowa, N. J.
Chicago • Boston • Philadelphia • St. Louis • Atlanta • Los Angeles

Disinfect As You Clean...

With Mint-Odored Winter-phene

FOR FLOORS
REST ROOMS
FOOT BATHS
GENERAL DISINFECTION

A Disinfectant That DOESN'T SMELL Like a Disinfectant!

A-a-a-a-a-a-a-a-a-a-a-H Brother ! !

It's really a pleasure to clean floors when you add delightful WINTER-PHENE disinfectant to the solution. Completely deodorizes the areas cleaned and keeps them fresh and odorless — because WINTER-PHENE destroys the germs that usually cause obnoxious odors. Put WINTER-PHENE in your scrubbing solution or if you prefer to get the full benefit of its sanitizing properties add a little to the rinse water and you can deodorize while you sanitize. Everyone in the building will be happy because you will have eliminated all odor problems that originate in and on floor surfaces — especially around rest rooms, basements, storage rooms, etc.

Put an end to your building deodorant problems by adopting this simple method of adding a few ounces of WINTER-PHENE to the rinse solution. It's easy as pie — the cost is practically zero but the results obtained are terrific.

WINTER-PHENE is good for Athletes' Foot baths, too, general disinfection and sanitizing of any surface suspected of harboring disease germs.

ALL WINTER-PHENE Containers Beautifully Lithographed

Mail This Coupon for FREE TRIAL OFFER!

JAMES VARLEY & SONS, Inc.
1200 Switzer Ave., St. Louis 15, Mo.
Please rush my sample of WINTER-PHENE at once and quote me in various size containers.

Name.....

Company.....

Street.....

City.....State.....

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